Best practices
Admissibility and Eligibility

Comprehensive application: Complete and timely

- **Read carefully** all the requirements (including the admissibility and eligibility ones), guidance and instructions
- **Start well on time preparing** your application and do not wait for the last day to submit (you can still modify your application before deadline)
- **Specific supporting documents** are requested for **Innovation Fund grants**
- **Quality and clarity more important than quantity**
- Consult our FAQ, including for updates, and **use the Helpdesk if unclear**

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Best practices
Degree of Innovation

Degree of Innovation (DoI): Be exhaustive and underpin your claims with evidence

1- Establish the relevant State-of-the-Art in a clear and comprehensive manner

Describe

Technological State-of-the-Art (for innovative tech proposed)
- Performance data
- Cost
- Production Characteristics
- Tech/system Readiness Level

Commercial State-of-the-Art (of best-available technology)
- Performance data
- Costs
- Product characteristics

2- Explain in detail why and how the innovation goes beyond incremental innovation

Identify

Barriers for scaling up of innovative technologies

Barriers for combining innovative technologies

Compare

3- Provide key performance data
Evidenced in the feasibility study and other documentation

Provide evidence

Key performance data of the project's (combination of) Innovative Technology(ies)
- Costs, product characteristics
- TRL/System Readiness Level
- Energy efficiency, circularity

Evidence

- **Feasibility study**
- **DoI sheet of the GHG calculator**
- other supporting documents

- Compare the proposed innovation with both the commercial and the technological State-of-the-Art
- Check thoroughly Annex 1
- Provide all relevant information, be transparent and realistic

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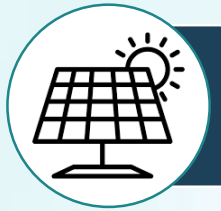
DoI – clarity and credibility of DoI claims

Check Annex 1 of the call text **in detail**



Compare your projects to existing best practice, use quantitative indicators

Incremental innovation, the degree of innovation is very low since only minor changes or improvements are made to existing products, processes or business models, projects which are likely to deliver only incremental innovation will not be retained.

Intermediate or strong degree of innovation is likely to be present in new or considerably changed technologies or processes or business models for the production or delivery of existing or new products or services

Very strong or breakthrough degree of innovation is likely to be present in completely new technologies or processes or business models or completely new products or services, which substitute existing products or business models

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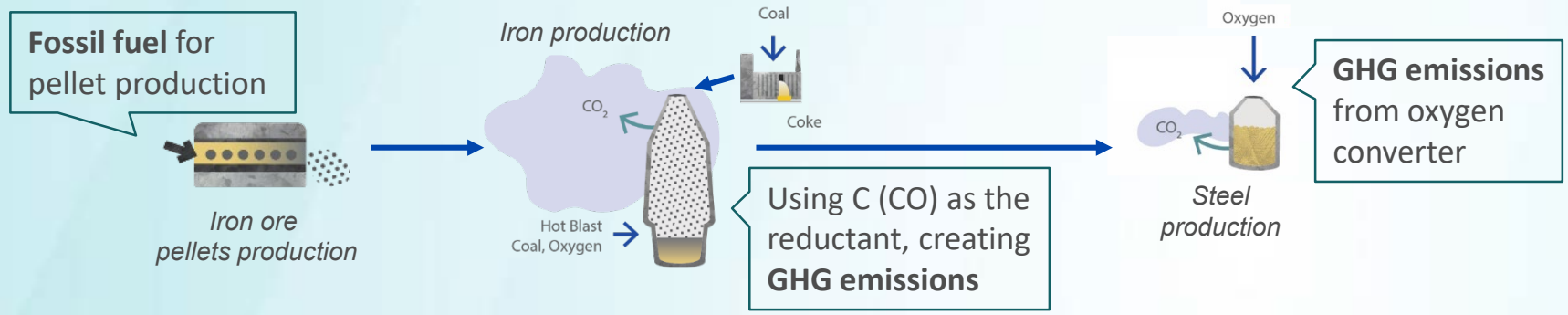
Degree of innovation – Fossil-free steel: HYBRIT Demonstration

Checklist	State-of-the-art comparison ✓	Describes barriers for scaling up ✓	Describes barriers for combining technologies ✓	Comprehensiveness ✓	Evidence based ✓
Examples	Sufficiently substantiate industry standards	Challenges with electrolysis and H2-DR on a large scale	Combining fossil-free pellets, electrolysis, DR & EAF	Thoroughly describing all stages in the value chain	Convincing pilot plant results (TRL7)

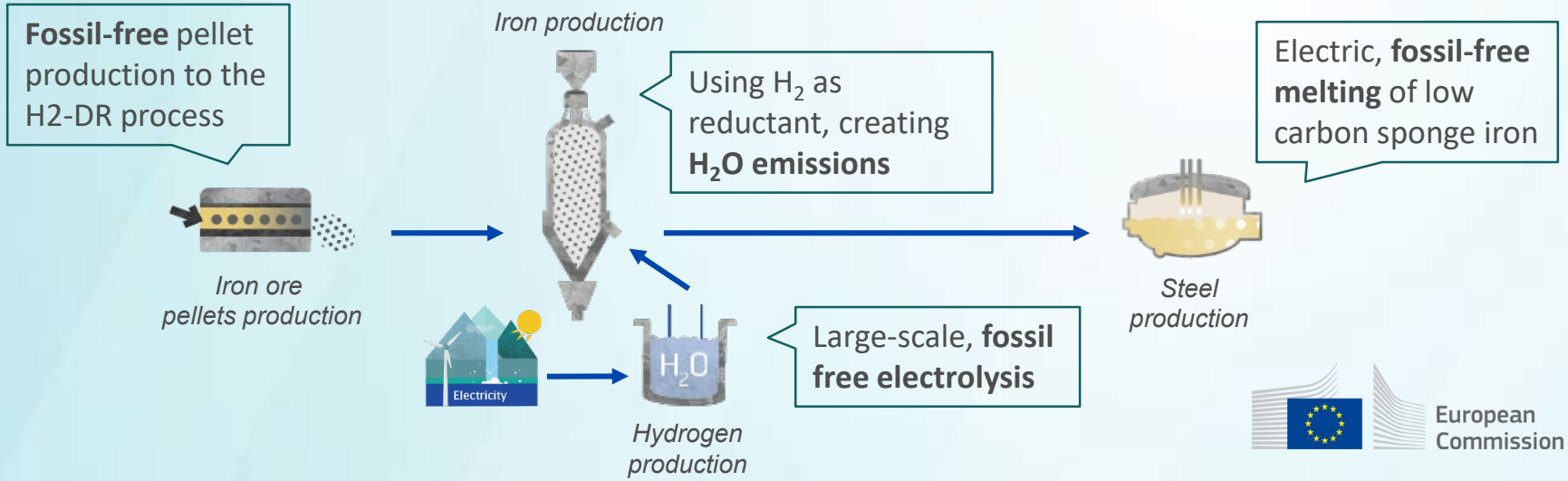
The relevant State-of-the-Art

Blast Furnace/Basic Oxygen Furnace (BF-BOF)



The proposed innovation

Hydrogen-based Direct Reduction Electric Arc Furnace (H2-DR - EAF)



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Degree of innovation- Wind Turbine project

Checklist	State-of-the-art comparison ✗	Describes barriers for scaling up ☑	Describes barriers for combining technologies	Comprehensiveness ✗	Evidence based ✗
Examples	Proposed techniques that allow the steel towers diameter to be increased are not substantiated in comparison to industry standard solutions	Challenges related to the increasing diameter.	Not Applicable	Insufficient information regarding specific wind turbine designs that the project claims to support.	The proposal does not substantiate the credibility of the innovations.

	Product innovation	**Business innovation**	
The relevant State-of-the-Art	Wind turbine towers with diameters up to 7m.	Currently a gap between demand and supply. Transportation limitations occur in sizes greater than 7-8m	Main manufactures are located in northern Europe
Elements	XL Wind Turbines	Supply chain capacity	Supply chain coverage
The proposed innovation	Build towers with wider diameters.	Facility located in a port to simplify transportation	Will cover the supply demand in the relevant region

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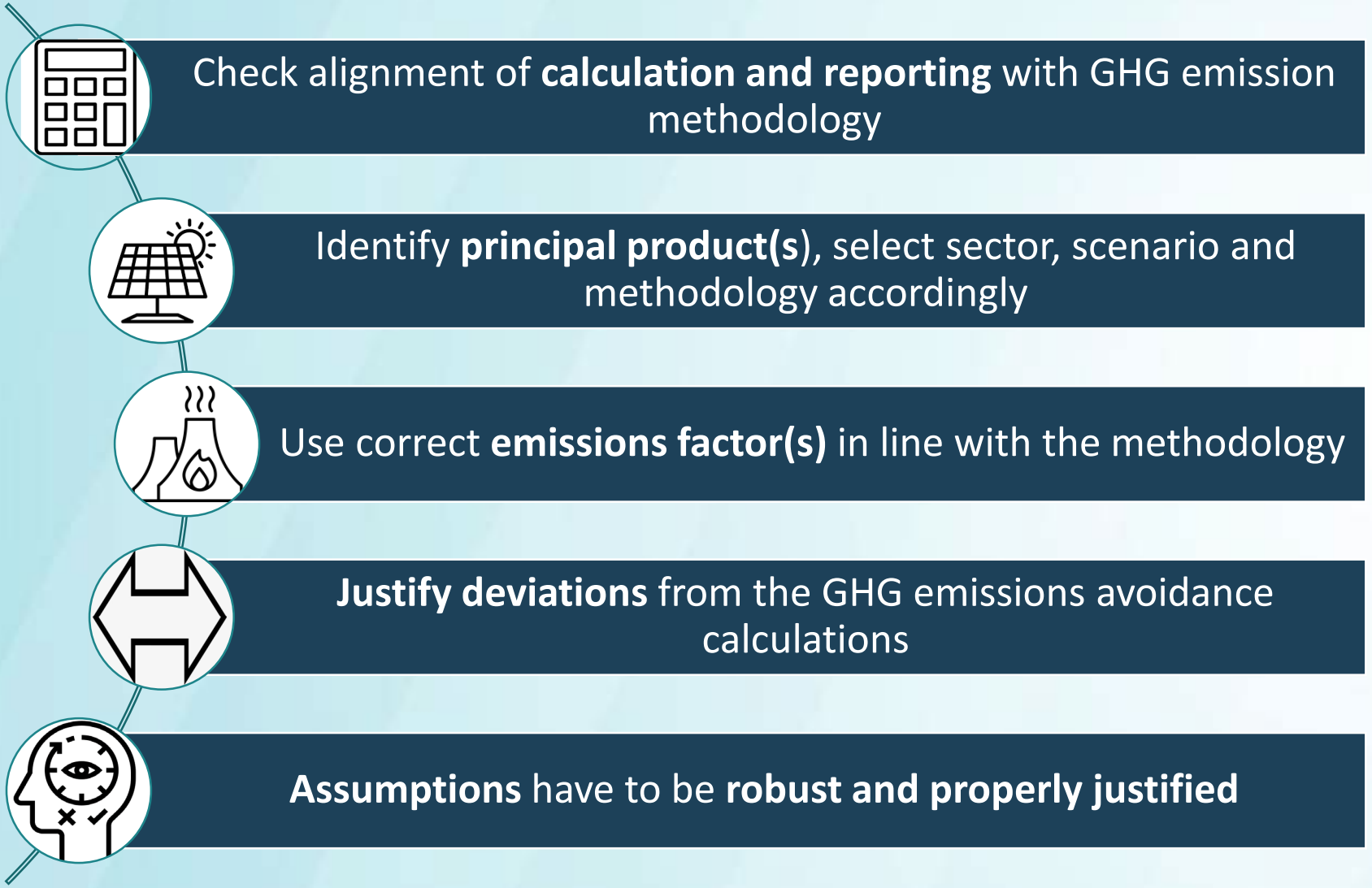
Best practices
GHG emissions avoidance

GHG emissions methodology:
choose and apply the correct methodology



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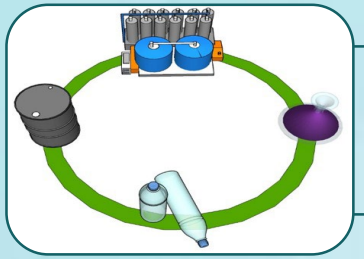
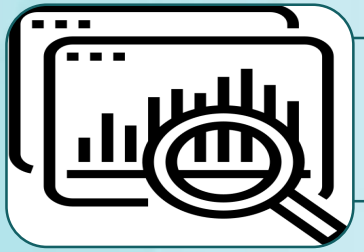
Use the provided tool: present the required information

Projected operational data			GHG emissions	
Source	Data unit	Comments	Type of data	Value
Inputs *[add rows and column, as needed]*				
Ref_{inputs}				
Ref_{inputs}				
Ref_{inputs}				

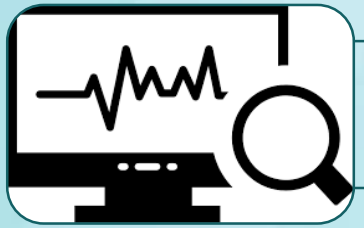
Clean, tidy and organised calculation with colour codes



Provide full LCA assessment in line with the IF GHG emissions avoidance calculator



Further disaggregate parameters for a more transparent and traceable calculation



Provide monitoring strategy by filling in the data traceability column in the calculation tool

Clearly report quantified absolute and relative emissions avoidance: **be consistent across the documentation**

ΔGHG_{abs}

Declare upfront the quantified absolute and relative emissions avoidance objectively and visibly in the Application Form. **Follow this with a step-by-step of the calculation** of each parameter and references to the cells in the Excel sheet.

Double check that the absolute and relative emission avoidance amount claimed is the same in the Application Form and in the MS Excel sheet.

Ensure that any **GHG savings that go beyond the boundaries** defined for your sector are **claimed separately** in the tab 'Other GHG emissions avoidance'. Significant other GHG emissions (more than 10%) are rewarded with additional points.

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Assumptions and emissions factors: document and properly reference them

- Use projected **operational data backed by robust evidence**. Document in a transparent manner the assumptions adopted to estimate/extrapolate
- In case of uncertainties **use conservative values**
- Disclose **all assumptions in a disaggregated manner** and properly referenced
- **Leave a clear verification trail**: include the source of information and hyperlinks to the original reference. whenever a value differs from the methodology.

Main mistakes on GHG emissions avoidance

Difference in scope of reference and project scenarios

Adoption of inadequate reference scenario and emissions factor

Project boundaries differed from the methodology ones

Assumptions and data not backed with supporting evidence

Additional GHG savings claimed under Absolute GHG emissions avoidance

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Best practices
Project maturity

Best Practice on Project maturity

1 **Define a project timeline**

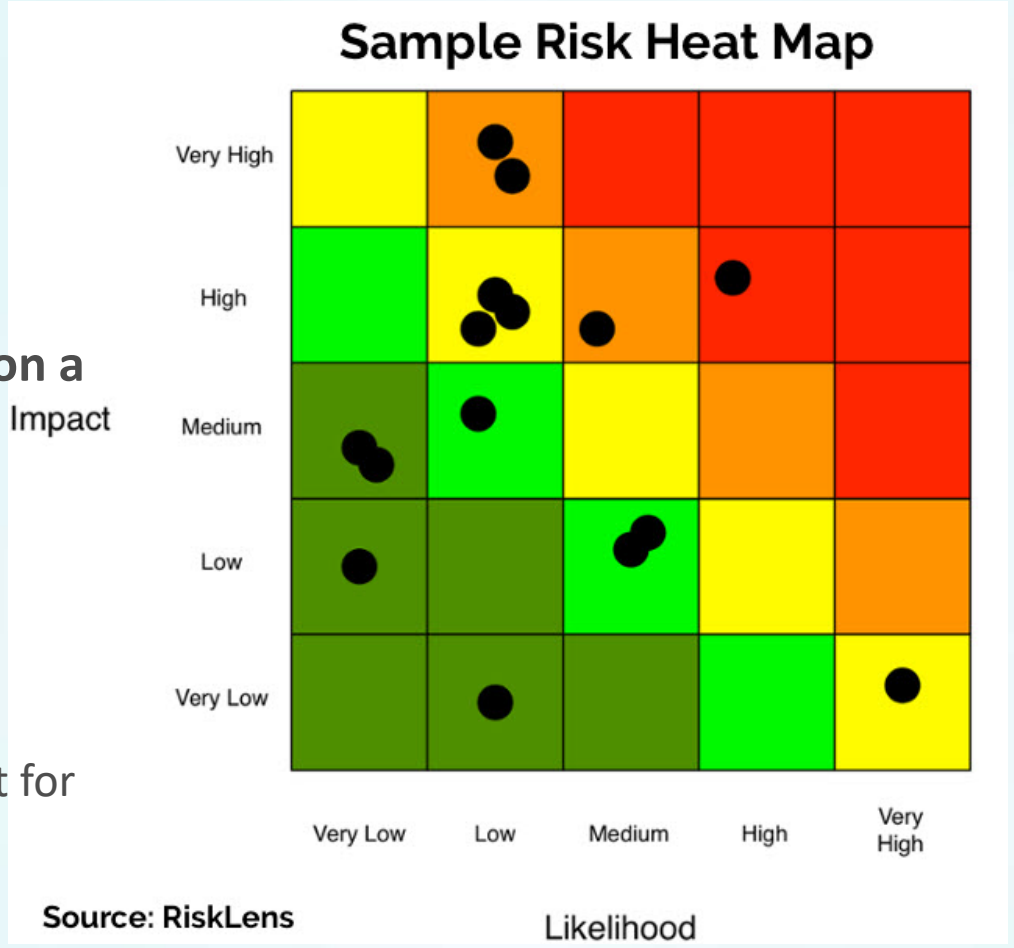
- Make sure it is comprehensive, realistic and consistent with your project's technical and financial elements

2 **Identify technical, financial and operational risks based on a comprehensive risk assessment**

- Ensure that your mitigation strategy is convincing across the major technical, financial and operational risks

3 **Provide contractual evidence**

- E.g., letters of support, MoUs, indicative terms of agreement for off-take agreements, key suppliers, EPC parties



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Best practices
Technical maturity

How mature is your technology: **Describe the actual readiness level of your technology/solution**

Resubmissions are welcome, particularly if the readiness of your **technology has improved**

Ensure consistency between project implementation plan, feasibility study, business plan and GHG calculations

1 **Provide a thorough analysis and technical description**

- Be concise and focus on key facts and figures

2 **Justify and provide evidence for the claimed expected output, e.g.:**

- Evidence and performance data from previous stage/site/pilot
- Third party confirmations, quotes from vendors or suppliers, signed letters of agreements or head of terms

3 **Analysis of technical risks and their mitigation is required**

- Use due diligence report when available

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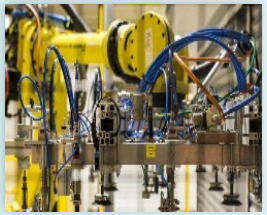
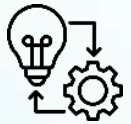
Technical maturity: Manufacturing HJT and tandem solar cells

Checklist	Justify evidence with demonstrated TRL ✓	Provide analysis with performance data ✓	Ensure consistency among the documents ✓
Examples	 10 years pilot line operations 100 MW/year AMPERE H2020 project	 Capability cells production (expansion of the facility)  Cells efficiency  LCOE	 Feasibility Study  Business Plan  Implementation Plan  GHG calculator

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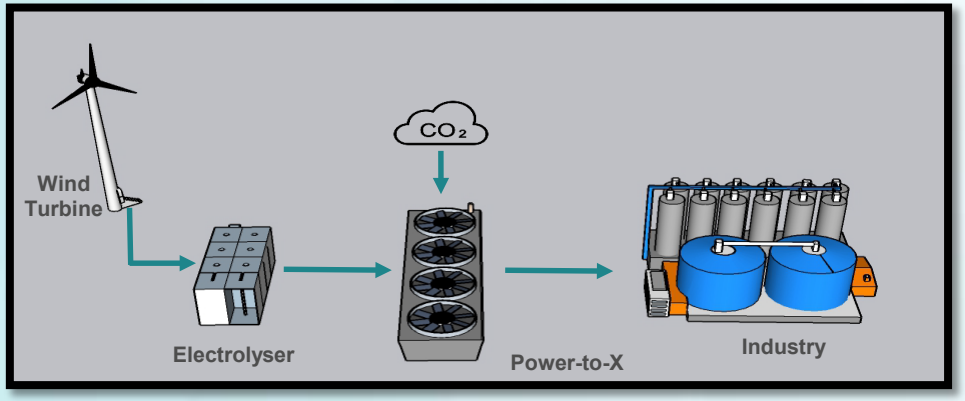
Technical maturity: Integration of technologies for Power to X

Checklist	Justify evidence with demonstrated TRL ✗	Provide analysis with performance data ✗	Ensure consistency among the documents ✗
Examples	• Unjustified TRL of the Electrolyser • No pilot or smaller scale demonstration of Power-to-X • Wrong system operational assumptions	• No system performance data • Qualitative indicators of CO2 capture	Feasibility Study Business Plan Implementation Plan GHG calculator



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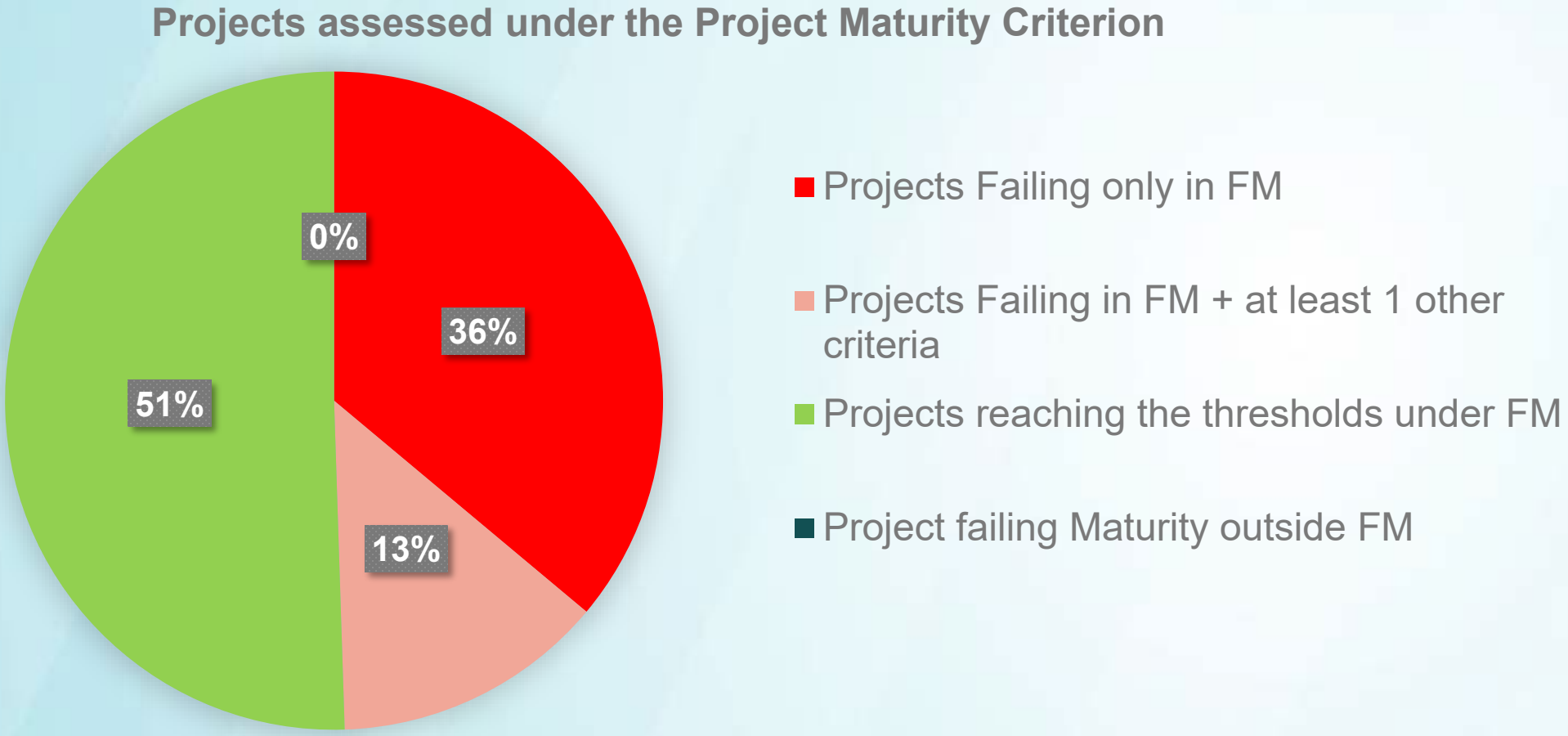
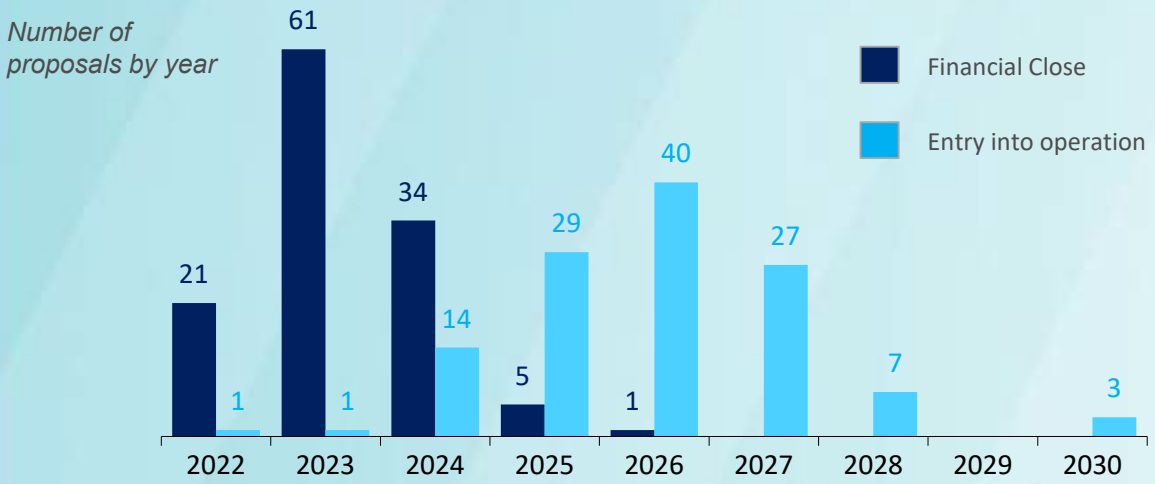
Best practices
Financial maturity

Financial Maturity (FM) : success rates LSC 2021

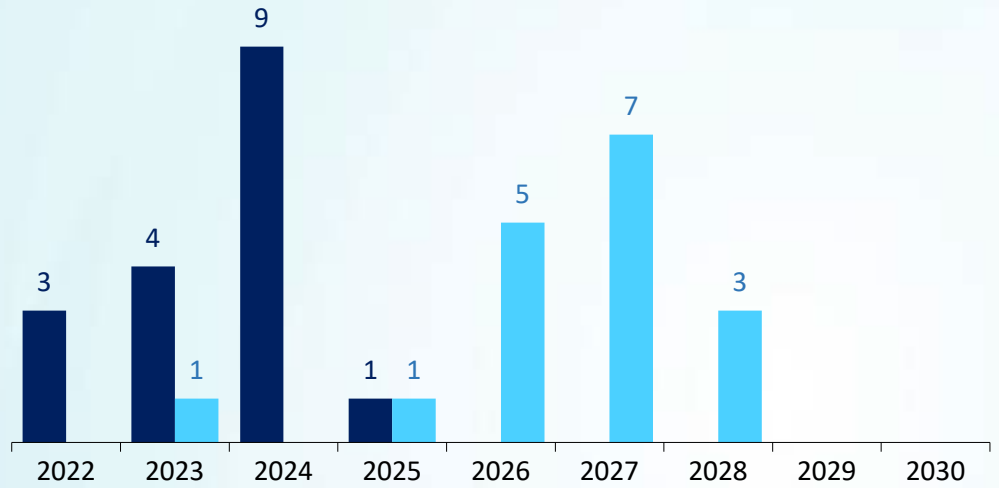


Most proposals anticipate FC within 2 years and 3 years of construction

Submitted proposals



Pre-selected proposals



- Assuming that pre-selected projects sign their grants by end of December 2022, 94% of them are anticipating to reach financial close within 2 years from grant signature
- When taking all projects submitted into account, 95% are planning to reach financial close within 2 years
- Business plans anticipate construction to take about 3 years on average after Financial Close, but for some projects completion is expected to take more than 5 years

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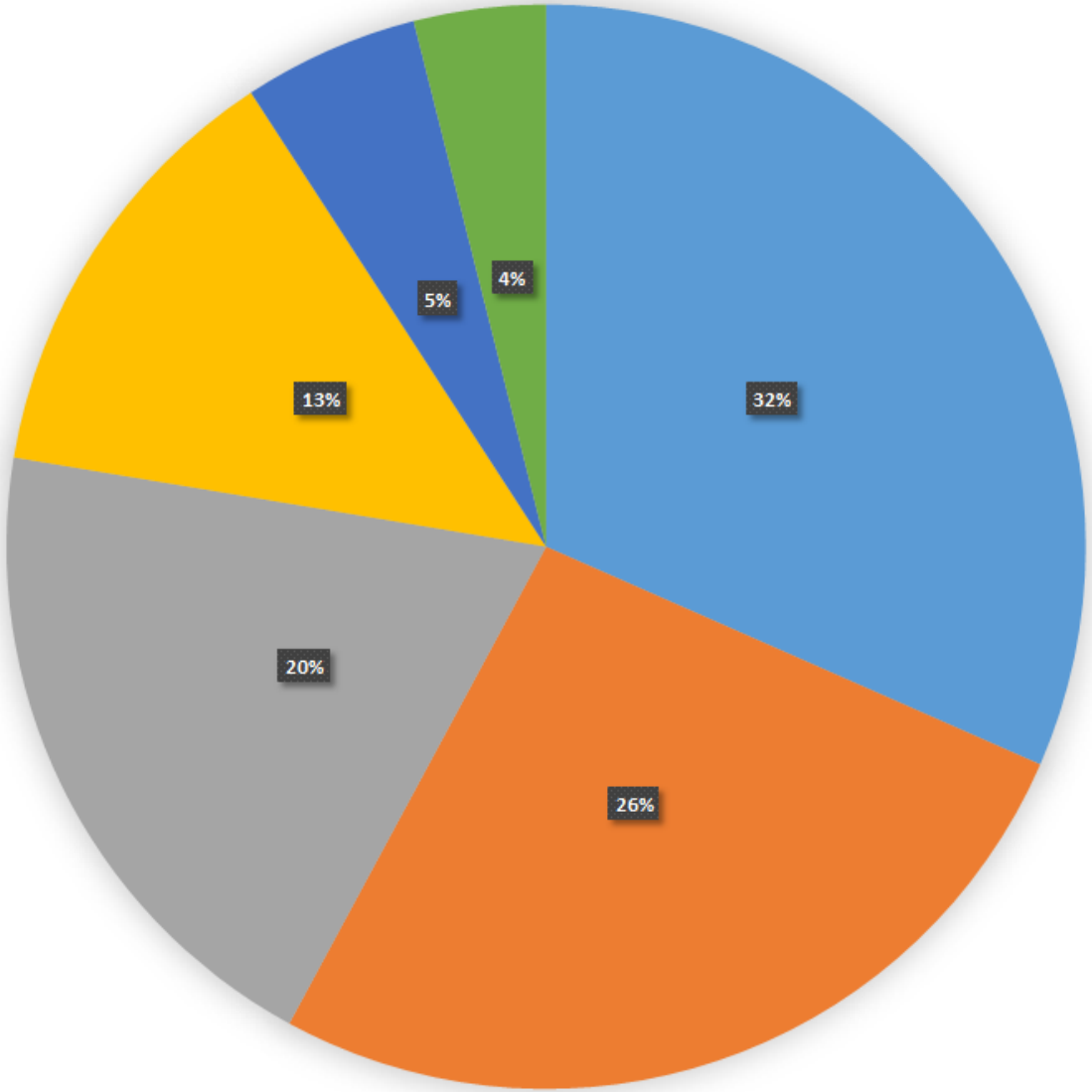
Most frequent Significant Weaknesses



- The project is not profitable + the financing plan is not credible
- The business plan is not credible + assumptions are not substantiated nor credible
- There are inconsistencies between RC - BP - FMSS - Detailed Business Model
- The WACC is not credible : there are inconsistencies or is not calculated according IF Methodology
- The business and financial risks and their mitigations are not identified nor substantiated
- The scope of the business plan is inconsistent and not substantiated

Credibility of the Business Plan

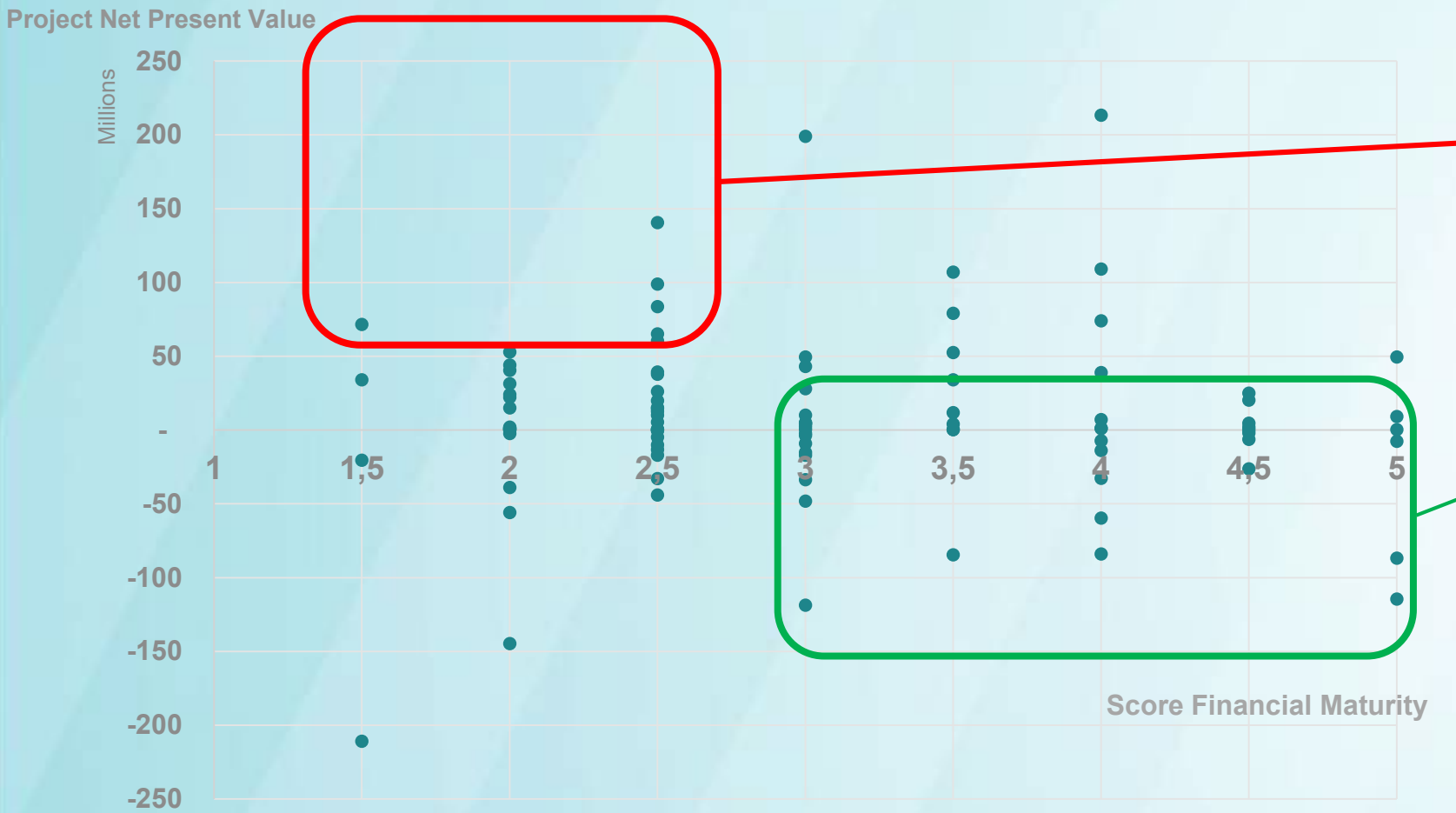
- Make sure that the financial projections are coherent with the assumptions detailed in the business plan and used in the other application documents.

- Fully describe and substantiate the main revenues and cost assumptions: provide and justify volumes, prices assumed, write a clear narrative for your assumptions and make sure they are coherent with your thorough market assessment and technical feasibility assessment.

- Provide a clear and full breakdown of CAPEX with references and justifications.

- Make sure that the scope of activities of your business model and business plan match the scope of the project you submit, that the assets and costs of the project are borne by the applicant and grant beneficiaries.

Profitability is not the whole story



Profitable proposals could be penalized severely if their business and/or financing plans lack credibility

Proposals with low returns could still meet scoring thresholds in particular, if the funders provide strong evidence that they are committed to fund the project

Profitability is only one element considered in the evaluation of financial maturity

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Credibility of the Financing Plan

- Highlight the financing structure indicating whether the debt will be raised at the level of the corporate entity or of the project, and the level of recourse to the project shareholders
- If the project is planning to raise external debt, justify the key terms assumed, expected cash flows and that this debt level and repayment profile is in line with market standards. If possible, provide letters from banks/debt investors to support these assumptions
- **If a project has low profitability and/or subject to high volatility of cash flows, we expect strong evidence of commitment from sponsors.**

Avoid inconsistencies and provide supporting evidence

- Provide contractual evidence (e.g., letters of support, MoUs, indicative terms of agreement) for off-take agreements, key suppliers, construction/EPC parties
- Make sure that the grant disbursement schedule is in line with the call text guidelines
- Ensure that assumptions used for WACC are adequately reflecting the project risks and refer to dedicated section on WACC assumptions in the guidance on relevant cost methodology
- Provide a detailed financial model covering the entire project lifetime and consistent with the project milestones

Best Practice :
Use your own Detailed Financial Model to fill the "Detailed Budget Table / Relevant Costs Calculator"

Item	Unit	EUR/t	2023	2024
Volumes				
Baseline				
Feedstock	kt		17	50
Product - Light	kt		9	26
Product - Heavy	kt		4	14
With Project 1				
Feedstock	kt		17	62
Product - Light	kt		9	32
Product - Heavy	kt		4	14

[PROJECT] - Model inputs				
Year			2023	2024
Period Start			01-01-2023	01-01-2024
Period End			31-12-2023	31-12-2024
5 Profit & loss				
Revenues		Total		
(+) Total revenues from products and other revenues	k EUR	-	-	-
(+) Total revenues from products	k EUR	-	-	-
[Product/Service 1]		-	-	-
Price	[Unit]	-	-	-
Volume	[Unit]	-	-	-
[Product/Service 2]		-	-	-
Price	[Unit]	-	-	-
Volume	[Unit]	-	-	-

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Identify the risks, mitigate them and clarify the scope

Example 1 : Carbon capture and storage (CCS)

If the carbon storage is outside the scope of the project, ensure that you do have enough strong indication that CO2 transport and storage infrastructure will be available and related contracts secured to ensure that your project can mitigate these risks

Example 2 : Waste-to-power for production of hydrogen or chemicals

If the feedstock is externally sourced, ensure that you have Letters of intent (LoI's) from potential suppliers and provide a detailed overview of the feedstock availability in the project area. Take the potential cannibalisation effect into account.

The 7 golden rules of FM

1. Clearly outline project scope, legal structure (*) and potential interdependencies with other projects

2. Identify & provide <u>effective</u> mitigation measures for key risks

3. Ensure your business plan is fully funded and provide evidence of funding commitment

4. Follow our guidance on how to calculate your project WACC

5. Give evidence of preliminary contract

6. Substantiate and justify your business assumptions

7. Assess market, competitive landscape and commercialisation

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(*) if project is set of as a consortium, outline the main responsibilities and working arrangements

Best practices
Operational maturity

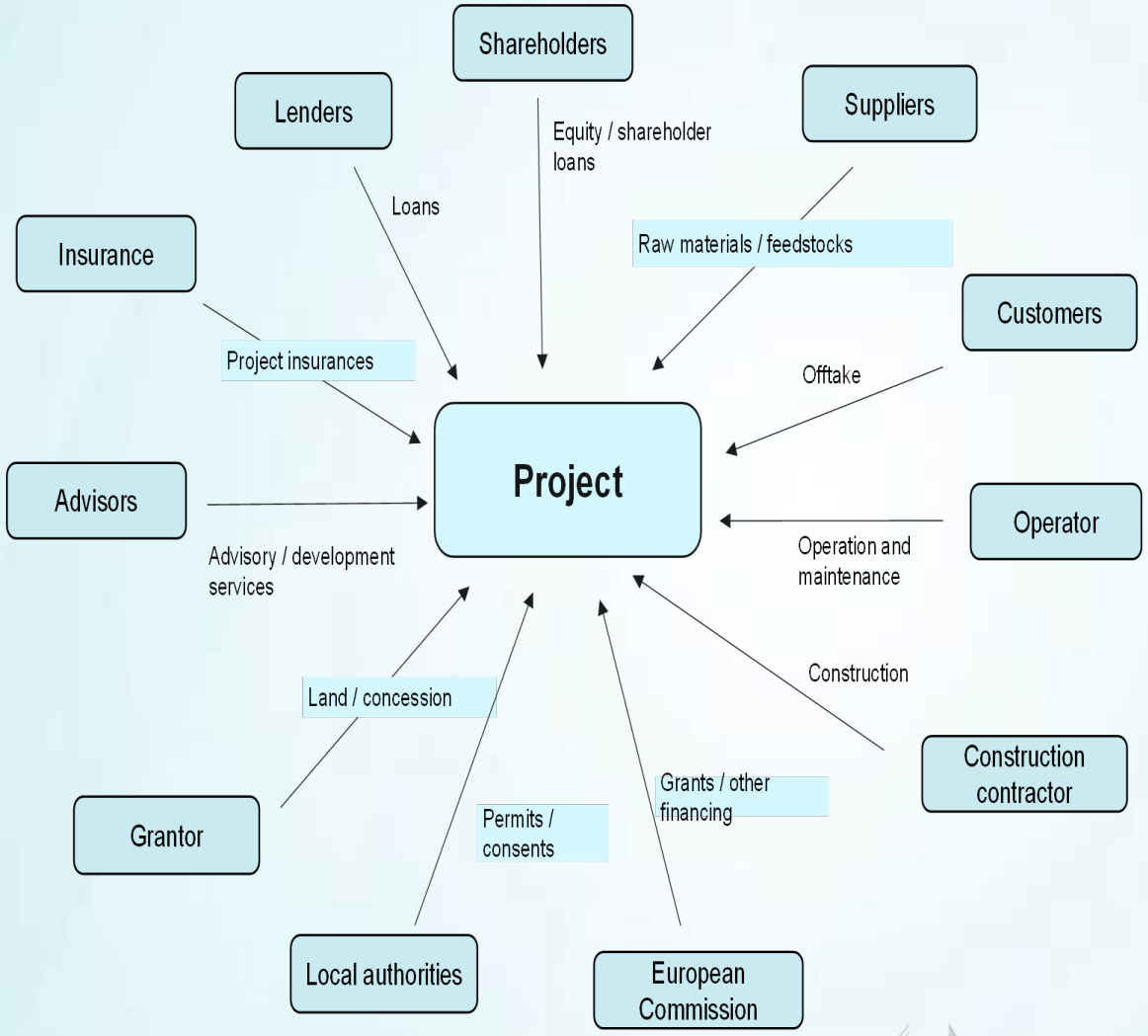
Operational maturity: Justify the likelihood of your project deployment as planned

Have a **defined strategy** for off-take agreements in place

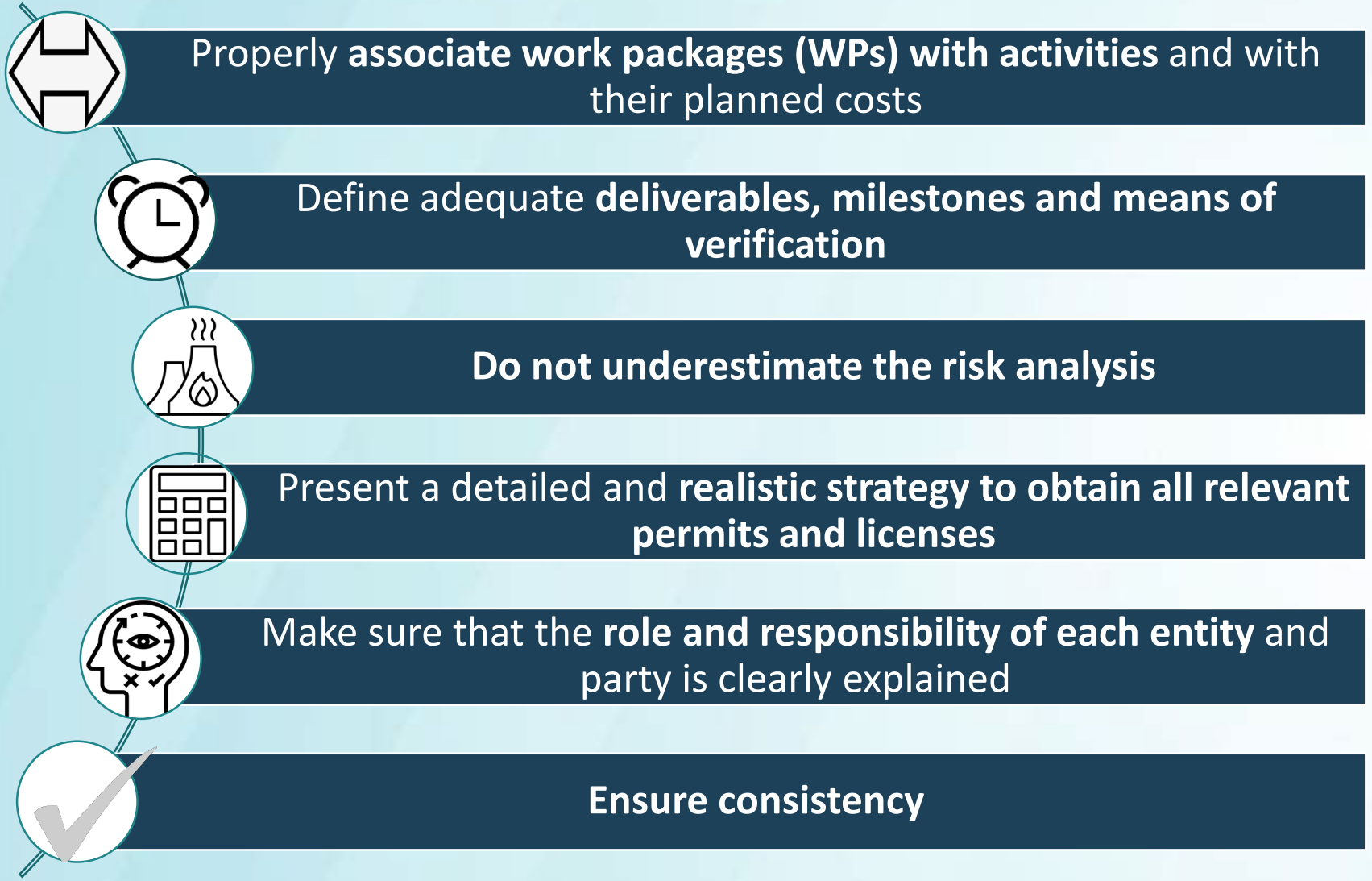
Have a strategy for **construction and supply contracts** in place

Ensure your project **parties, partners and contracts are well-defined** and sufficiency explained

Provide a **clear and realistic timeline** of key project deliverables and milestones

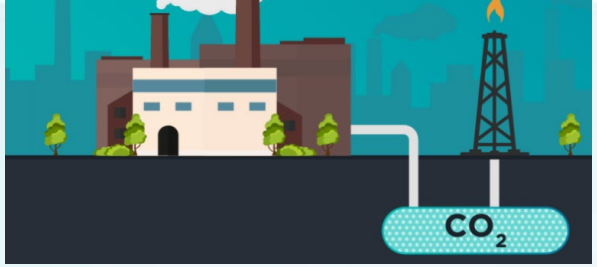


Workplan: Comprehensive, realistic, and consistent

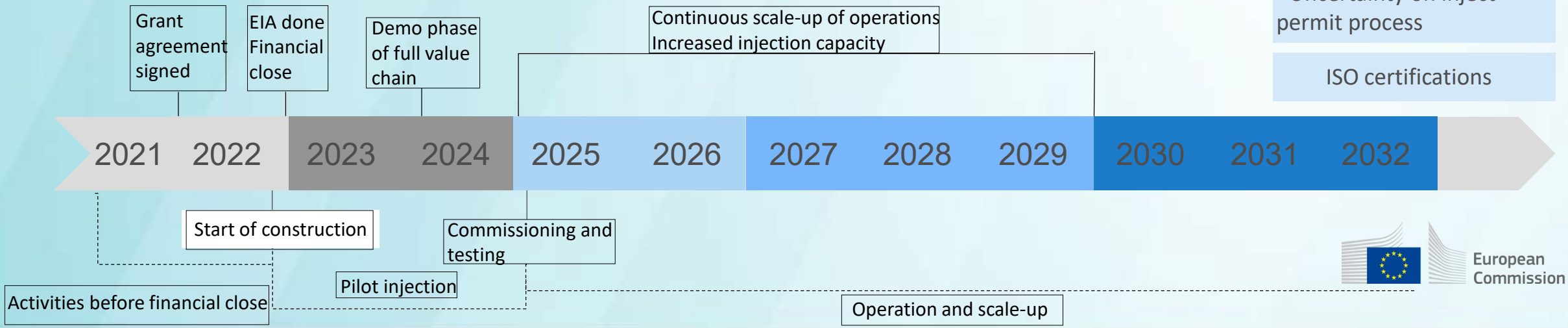


- Properly **associate work packages (WPs) with activities** and with their planned costs
- Define adequate **deliverables, milestones and means of verification**
- **Do not underestimate the risk analysis**
- Present a detailed and **realistic strategy to obtain all relevant permits and licenses**
- Make sure that the **role and responsibility of each entity** and party is clearly explained
- **Ensure consistency**

Operational maturity- CCS



Adequate WPs, deliverables & milestones ✓	Appropriate know-how & responsibilities ✓	Ensuring public acceptance ✓	Strategy for permits, rights & licences ✓	Operational risk assessment ✓
Proof of **keeping initial timeline**	Management have experience of large portfolios of **projects including coordinating EU funded projects**	**Support at the highest level of government** in the country	**Identified legal framework** for national and international laws and regulations	Early risk identification with mitigation measures **E.g. plan for:** - A heavier environmental impact assessment (EIA) process than expected - Infrastructure not ready in time - Uncertainty on inject permit process
12 WPs with same 8 interconnected tasks in each		Conducted **an independent survey to evaluate local acceptance** that showed support from the public	Plan for permits needed in **all stages of the process**	
Clear deliverables **e.g. report on storage reservoirs**				ISO certifications



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Operational maturity – Bio-refinery

Adequate WPs, deliverables & milestones

<u>Identification of the tasks is too generic</u>
Activities such as **engineering, construction preparation** and **preparing for investment decision** are **not sufficiently developed** in respect of the relevant sub-tasks

<u>Work plan is not sufficiently consistent with the Gantt chart</u>
Does not consider inter-dependencies between activities

Schedule is not sufficiently convincing given the current state of development of the project

<u>Key mile stones and deliverables are insufficiently identified.</u>
E.g. Plan and timeline for **forming the proposed business partnership is insufficiently elaborated**

With the provided timeline **interdependent activities** will **not be done before operations start**

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Operational maturity - Geothermal

Adequate WPS, deliverables & milestones	Ensuring public acceptance	Operational risk assessment

<u>Timing related to one of the most critical tasks</u>

Preparatory site construction works and **research mining works** to establish reserves **is largely underestimated** with only 4 months between drilling start for 2-4 wells and end of drilling, completion & testing.

Public resistance to fracking is insufficiently addressed

<u>Strategy for public acceptance</u>

Mainly based on one-way communication with insufficient focus on public engagement and stakeholder involvement

<u>Some key project operational risk are insufficiently defined.</u>

Risk for potential gas depletion of the reservoir

Risk that the operating hours of engines are less than expected

Risk connected to fractures induced by fracking

<u>Environmental impacts throughout the project life-cycle are not sufficiently elaborated</u>

- E.g The issue of induced seismicity

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Best practices
Scalability

Scalability: Demonstrate your growth potential

- Plan for technology uptake in other sites
- Provide detailed assumptions on cost reductions
- Underpin your claims with evidence and calculations (GHG calculator)
- Present how IPR and licensing issues will be handled, e.g. technology transfer at sector level
- Avoid unsubstantiated, generic claims related to EU green deal and REPowerEU objectives
- Clear and comprehensive communication & dissemination strategy

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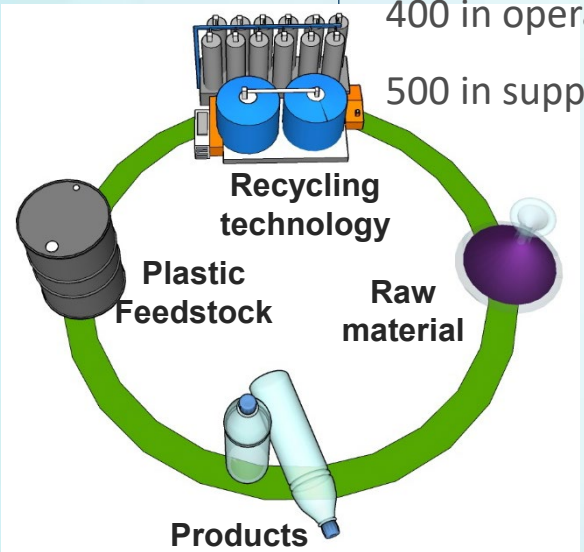
Scalability – Recycling Plastics Waste
Project and regional

Checklist	Expand and upgrade the facility beyond IF ✓	Build a new site in EU or worldwide ✓	Direct impact on regional economy ✓	Indirect impacts on regional economy ✓
Targets	50ktons of waste plastic by 2028 838,9 ktons GHG emissions avoidance	500ktons of waste plastic by 2030 9029,2 ktons GHG emissions avoidance	**2500 jobs in the new value chain** 800 in the expansion of the facility 300 in waste management 500 in engineering functions 400 in operations 500 in support functions	Equipment manufacturers Packaging companies Research organizations Plastic converters



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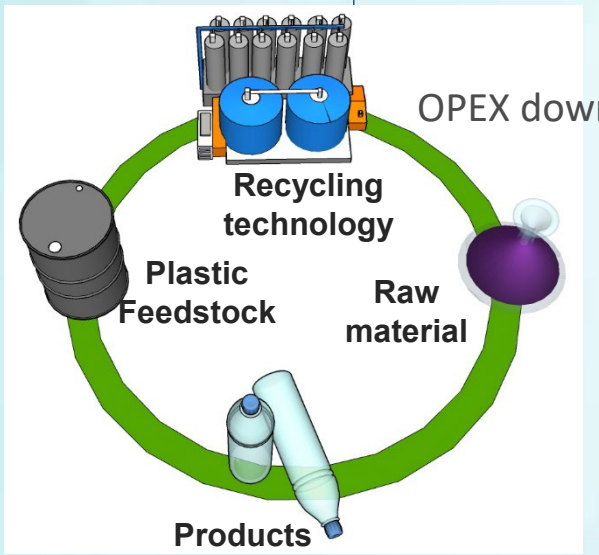
Scalability – Recycling Plastics Waste
Sector

Checklist	Technology deployment within the sector ✓	Technology capacity expansion ✓	CAPEX & OPEX reduction ✓	Cost & recyclability of raw material ✓
Targets	Plastic recycling solutions – chemical recycling	**Total capacity expansion:** 3 plants by 2035 of 200kta 350 ktons CO2 GHG emissions	Costs reduction 10% CAPEX decrease Plants operations and troubleshooting increase capacity 5% with same CAPEX. OPEX down 15%	Raw material costs down to 10%



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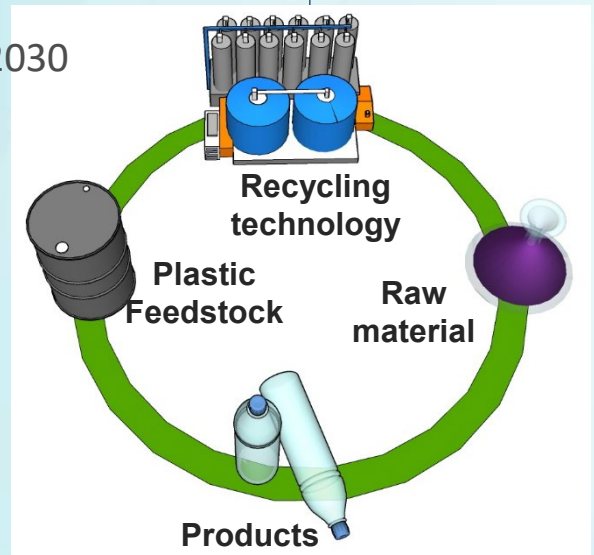
Scalability – Recycling Plastics Waste
Economy-wide & knowledge sharing

Checklist	New end-use streams ✓	Knowledge sharing ✓
Targets	**Increased the demand for recycled materials** • Electronics industry – 2.1 Mta by 2030 • Automotive industry – 1.3 Mta by 2030 • End-life-tyres – 1.9 Mta by 2030	**Dissemination strategy towards** • Industry • Academia • General public **Accelerate the scale-up of the technology**



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Scalability- New focus areas since previous calls

Scalability in terms of efficiency gains

- Expected technology cost reductions
- Efficient use of resources or other ways to address resource constraints

Scalability in terms of further technology or solutions deployment

- Plans for expansion at the project site and possible technology transfer to other sites
- The extent the technology can be applied within the sector, regionally, EU or globally
- Potential to transfer the technology to other sectors
- Related expected additional emission avoidance
- Impacts on economic growth and jobs

Potential to become cost-competitive and financially viable over time

- For projects that are largely dependent on subsidies the potential to become cost-competitive in the absence of subsidies is evaluated

Potential to create new value chains or reinforce existing ones in Europe

- With regards to the contribution to the development of strategic autonomy i industrial supply chains, as defined in the EU Industrial Strategy 2021 and the Communication on a Recovery plan for Europe

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Best practices
Cost efficiency

Cost efficiency ratio calculation: follow the guidance of the new call text

A lower grant amount **improves the Cost Efficiency ratio**

Use the amount of absolute GHG emission avoidance as calculated under the GHG emissions avoidance criterion.

The call text has been clarified on the treatment of project-specific State Aid in the cost-efficiency ratio calculation – follow the guidance in the call text

Cost efficiency – be consistent

Main change VS previous calls

Cost Efficiency
Is now automated in the "Financial Information File "

Main attention points

1. Do not change or alter the file and the cells
2. Follow the instructions mentioned in the file and the online tutorial
3. Do not forget to add the GHG emission reductions
4. Fill the file completely
5. **BE CONSISTENT** – Business Plan / FIF / Detailed financial model

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Final Recommendations

Full application: **Ensure consistency, clarity and reliability**

Ensure consistency

- Clarity of information is more important than quantity
- Cross-reference to annexes clearly
- Use requested font size and template
- Respect page limits

Be realistic

Be clear on the proposed legal and organizational structure of the project

- E.g. the possibility to include or create an SPV and present a solid strategy and timeline

Make sure everyone is onboard

- Entities and parties upon which the project implementation depends need to be fully in line with the proposal and provide explicit and solid support.
- E.g. permits, buy-back rights, licenses, commitment for additional funding clearly stating the amounts and dates of injection of fund etc.

It's always a good idea to have **someone** (that's not involved in the preparation of the proposal) **checking the proposal** documents

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