

**A SUSTAINABILITY ASSESSMENT APPROACH
COMPLIANT WITH THE UNFC FOR
ON-SITE EXPLORATION DATA TO IDENTIFY
THE RAW MATERIALS RECOVERY POTENTIAL
FROM BASE METAL TAILINGS**

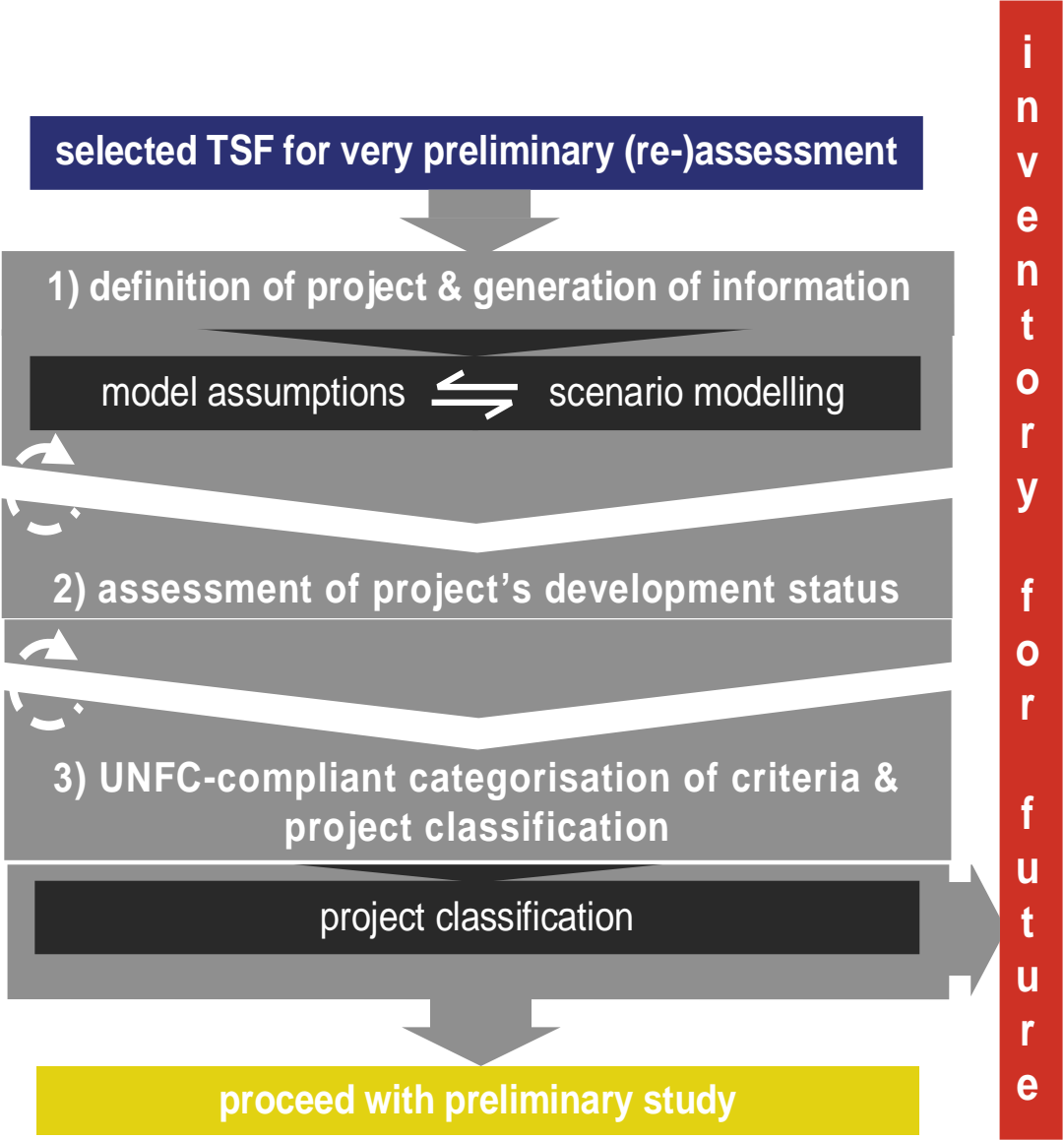
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Objective

- Assessment & classification of the tailings under consideration of all dimensions of sustainability using on-site exploration data
- Application to the case study base metals tailings deposit Bollrich (Germany) at a very preliminary level.
- Evaluation of 3 scenarios:
 - rehabilitation (NRR0),
 - recovery with a focus on
 - economic (CRR1)
 - sustainability aspects (ERR2)



Three steps for a systematic raw materials recovery project assessment & classification



Classification compliant with the UNFC

Overall project rating for all 3 scenarios: E3.3 F3 G3

		overall project			subprojects for individual raw materials recovery (CRR1, ERR2)				
aspects		NRR0	CRR1	ERR2	BaSO ₄	Cu	Ga	FeS ₂	inert material**
total rating	geological	G3	G3	G3	G3	G3	G3	G3	G3
	technological	F3	F3	F3	F2	F2	F3	F1	F1
	economic	E3.3	E3.3	E3.1	E3.1	E3.3	E3.3	E3.2	E3.3
	environmental	E3.3	E3.2	E3.2	E3.1	E3.1	-	-	E1
	social	E3.3	E3.3	E3.3	N/A	N/A	N/A	N/A	N/A
	legal	E3.3	E3.3	E3.3	N/A	N/A	N/A	N/A	N/A

Conclusion

The developed approach helps to

- identify sustainability aspects at a local level
- provide a quick overview of project potentials & barriers to support decision-making for further project development
- create transparency for discussion with involved stakeholders to find an acceptable solution for how to proceed

Thank you



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