

Critical Raw Materials for Sustainable Energy Systems

**NINTH INTERNATIONAL FORUM
ON ENERGY FOR SUSTAINABLE DEVELOPMENT**

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AleffGroup

Redesigning the Uranium Resource Pathway

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Redesigning the Uranium Resource Pathway: Application of the United Nations Framework Classification for Resources (UNFC) for Planning and Implementing Uranium Projects

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A “Why” (algorithmic) rather than “How” document.

For decision- & policy-makers, based on active, often “sub-economic” projects

Is U recovery for use within a planned or actual national nuclear power program?

If so, is this program aligned with SDG13 Climate Action and the Paris Agreement (UNFCCC)?

If so, is this in part because of reasons of enhancing public acceptance and/or mitigating social risk and/or national reporting under UNFCCC?

If not, is the objective purely to sell U on the open market?

If so, or not is there a robust national capability for conducting a techno-economic feasibility study that can show that the case for engaging in U mining is justified.

If so, or if not, does the scope for the techno-economic feasibility study encompass options for recovery of co-located resources, especially where these comprise critical materials for the nuclear fuel cycle, within the context of policies of comprehensive resource recovery, zero waste and climate action?

If so, is the objective to enter a series of related long-term off-take agreements and/or memorandums of understanding with third parties, companies and/or countries, to be co-investors or supply-chain partners with and/or to them?

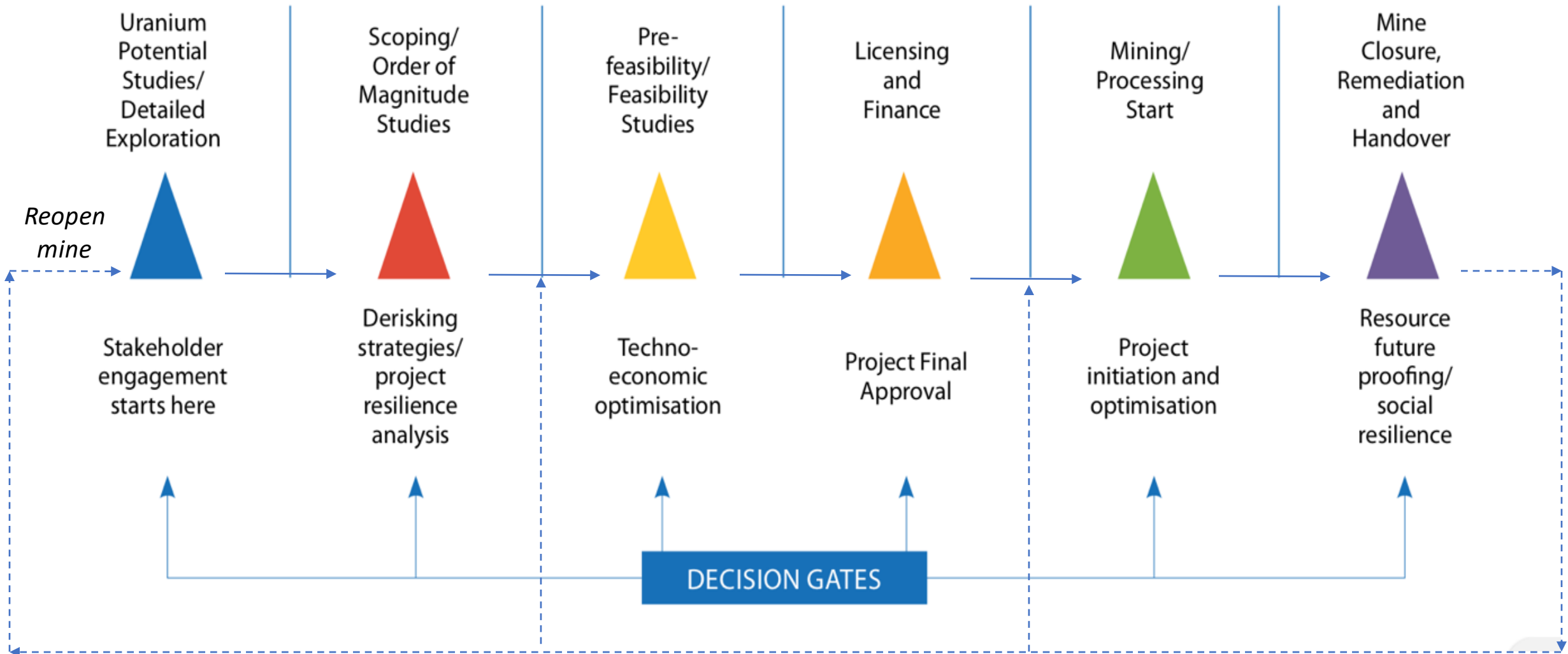
If so, are value at the source and local content key national policy objectives?

If so, are international standards for these local content policies, e.g. as set out by OECD [], the wider SDG agenda and the Paris Agreement, being pursued.

- For emerging concerns, eg in the United States, about security of fuel supply for nuclear power generation see <http://www.world-nuclear-news.org/UF-US-government-to-investigate-uranium-imports-1907184.html>

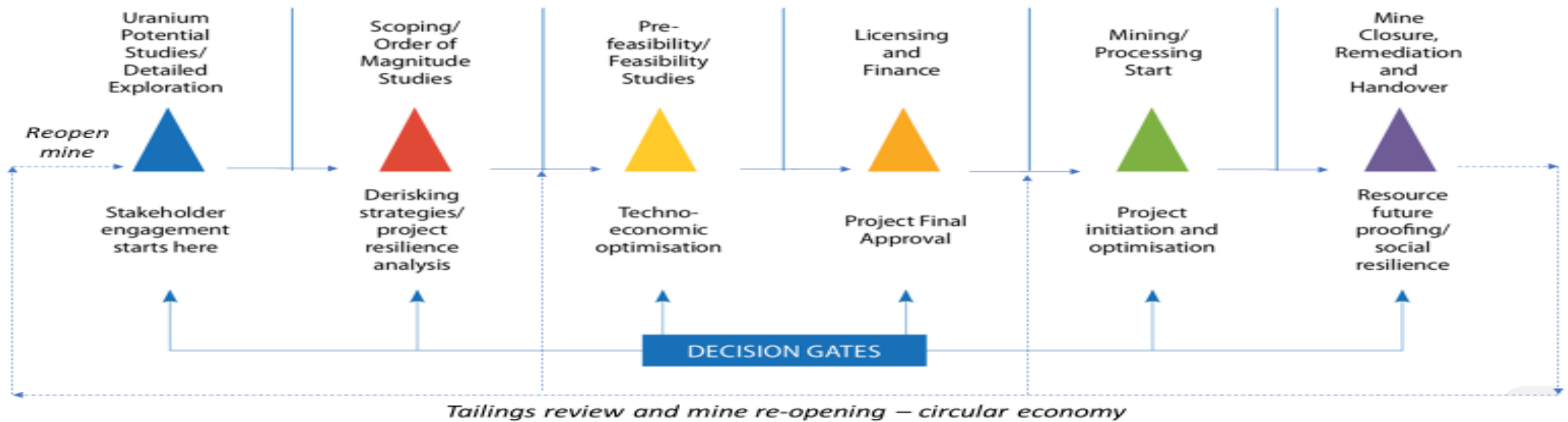
- [] ORGANIZATION FOR ECONOMIC COOPERATION AND DEVELOPMENT, Trade and Agriculture Directorate, Trade Committee Working Party, Local Content Policies in Minerals-Exporting Countries Part 1, TAD/TC/WP(2016)3/PART1/FINAL, Paris June 2, 2017, [http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=TAD/TC/WP\(2016\)3/PART1/FINAL&docLanguage=En](http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=TAD/TC/WP(2016)3/PART1/FINAL&docLanguage=En)

Project Milestones and Decision Gates



Tailings review and mine re-opening – circular economy

Project Milestones and Decision Gates



Czech Rep.

Czech Rep.

Nigeria

Philippines

Jordan

Tanzania

Argentina

Niger

Mongolia

Alignment, Dialogue, Life-cycle Planning and Mapping

- UNFC
- SDG 7
- SDG 13
- UNFCCC

People: Planet: Prosperity

- **People:** provide decision-makers with the best technical advice on options for and benefits of use of uranium as an energetic resource
 - One vital 2°C low-carbon stabilization pathway
 - Of critical significance to public health and safety in metropolitan communities - urgent need to reduce or eliminate the dominant sources of urban air pollution
- **Planet:** U as a “critical material” for SDG 7 + 13 - game changer for future economics of uranium resource recovery and management.
 - “We are determined to protect the planet from degradation, including through sustainable consumption and production, sustainably managing its natural resources and taking urgent action on climate change, so that it can support the needs of the present and future generations.”
- **Prosperity:** U is a potentially indefinite fuel resource with a very low land footprint
 - hence matters much to the future prosperity and environmental health of the planet
 - hence there is so much to be gained from redesigning the uranium resource pathway both in tangible terms (resource stewardship in ground and “recovered” and intangible term (knowledge and capabilities re U recovery and use)

Thank you

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