

GRMF & DIRECT USE

GRMF - MARKET SOUNDING
WEBINAR ON GEOTHERMAL DIRECT
USE IN EAST AFRICA

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Webinar, 5th May 2022



GRMF- DIRECT USE WEBINAR

1	INTRODUCTION TO GRMF
2	APPLICATION PROCESS
3	DIRECT USE
4	SOCIAL AND ENVIRONMENTAL BENEFITS
5	GRMF - DIRECT USE FACILITY



1. INTRODUCTION TO GRMF



The Geothermal Risk Mitigation Facility (GRMF) is managed by the Regional Geothermal Coordination Unit (RGCU) within the Department of Infrastructure and Energy of the African Union Commission (AUC-DIE).

East Africa has an estimated geothermal resource potential of over 15,000 MWe.
Development of this resource has potential to:

Improve the regional **power generation**

Constitute further advantages of geothermal energy projects like direct-use

Improve security of energy supply

Reduce CO₂ emissions

Reduce the frequency and severity of energy price fluctuations and black outs

Adding low-cost power generating capacity in East Africa

Implementing Agencies & Donors:



1. INTRODUCTION TO GRMF

Objectives:

Fund, facilitate, and accelerate geothermal project development in Eastern Africa.

Encourage public and private sector investment into **geothermal power generation**.

Act as a catalyst in establishing geothermal energy in eleven partner countries in the Eastern African Rift region

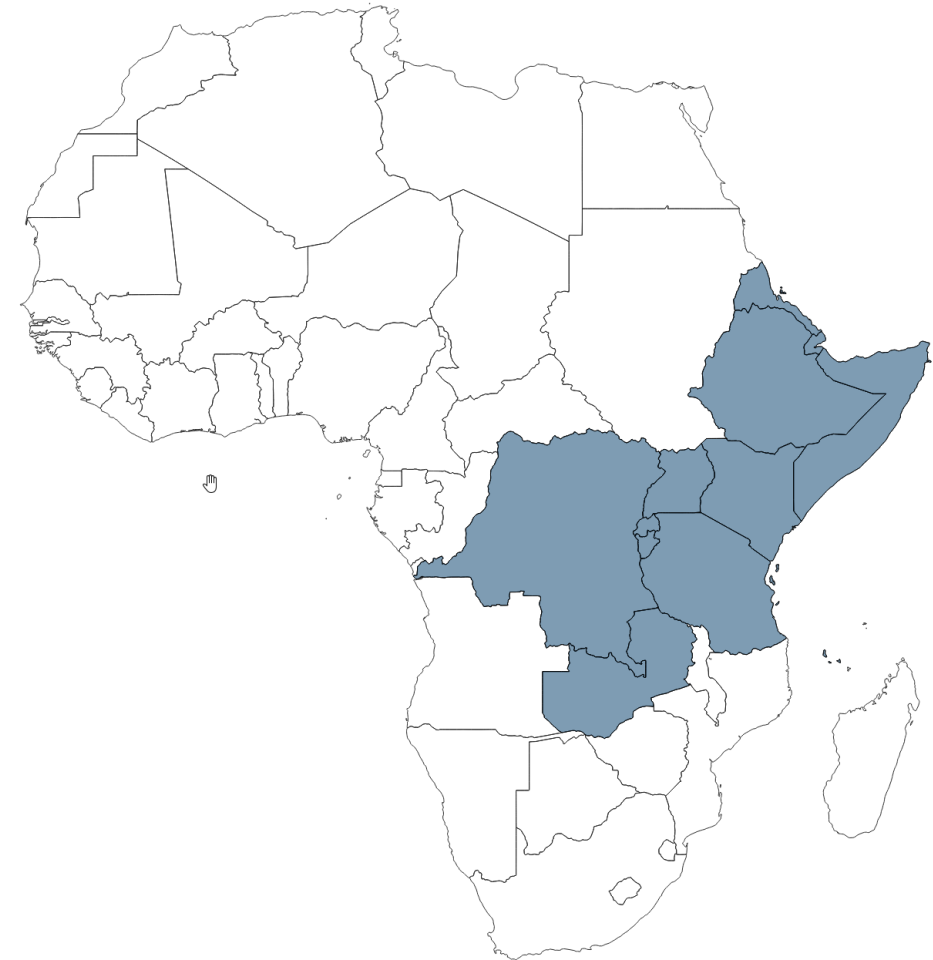
GRMF offers:

Information (pre-bidding workshops, geothermal database)

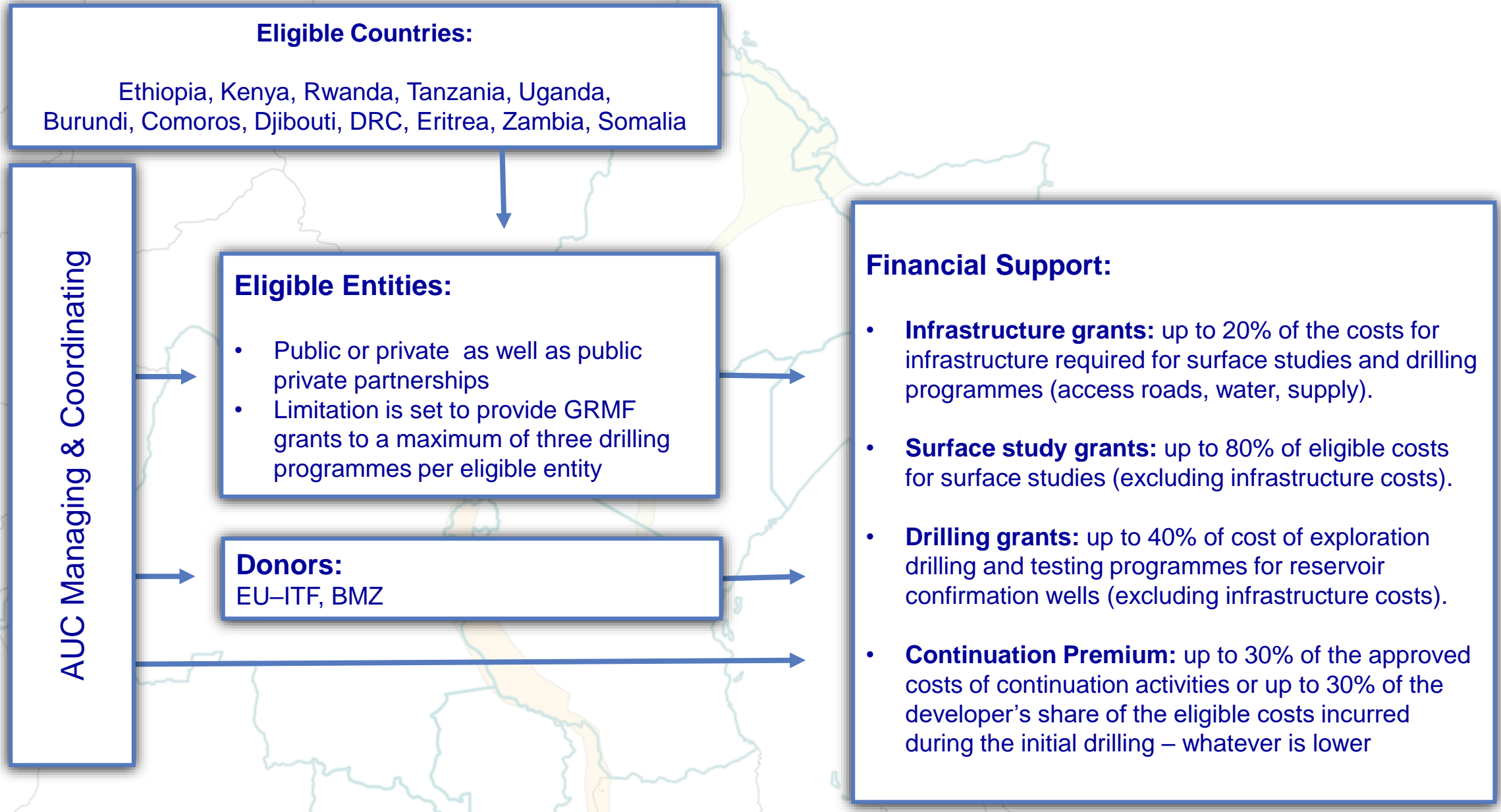
Capacity building (constructive feedback during the application process, structured approach for coherent planning)

Funding for Surface Studies to determine the optimal sites for exploration wells at geothermal prospects once they have been studied.

Funding for Drilling Programmes once the optimal locations for exploration wells as well as targets at depth have been determined.

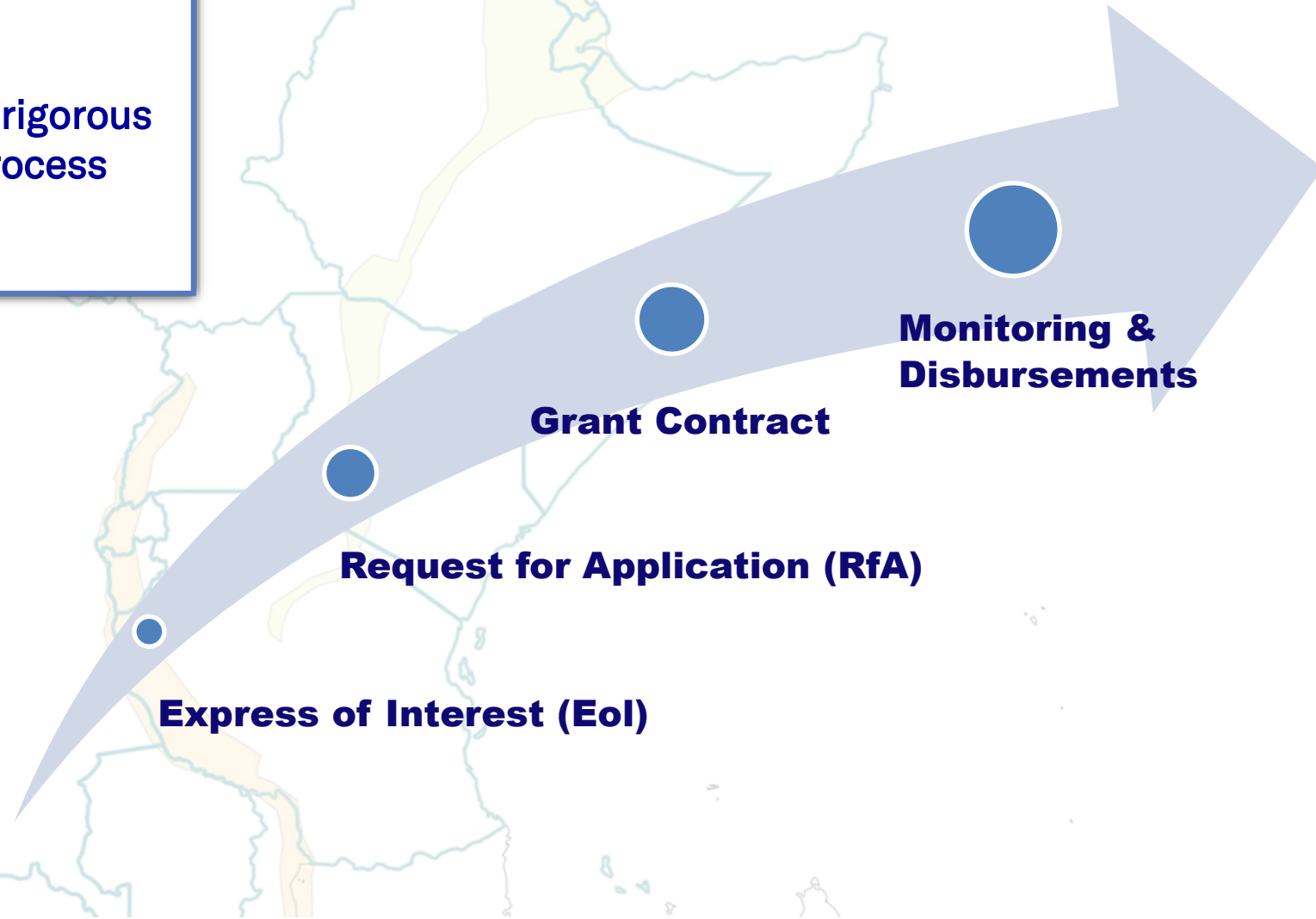


1. INTRODUCTION TO GRMF - FUNDING

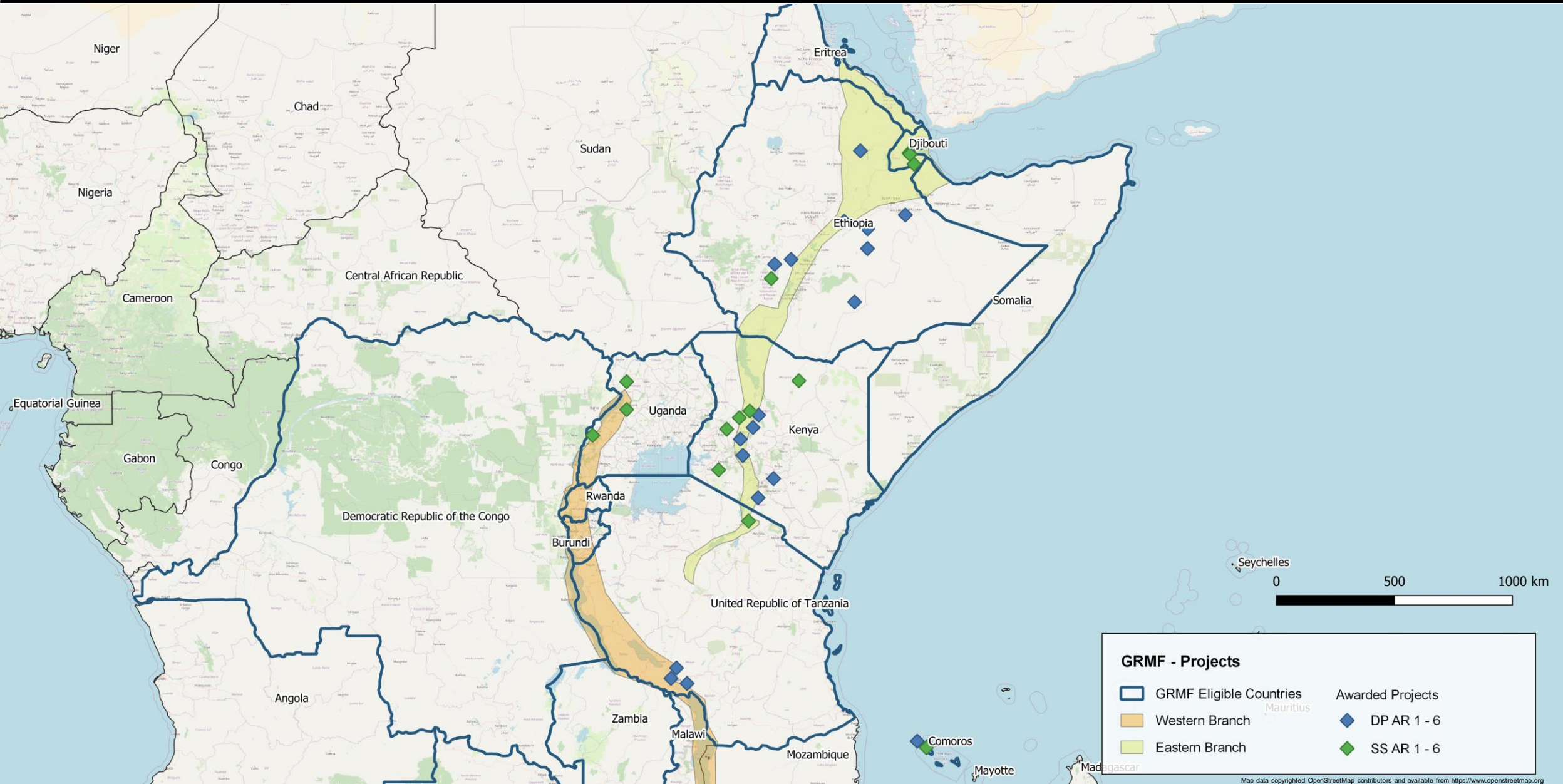


2. APPLICATION PROCESS

Competitive, transparent, rigorous
two-stage evaluation process



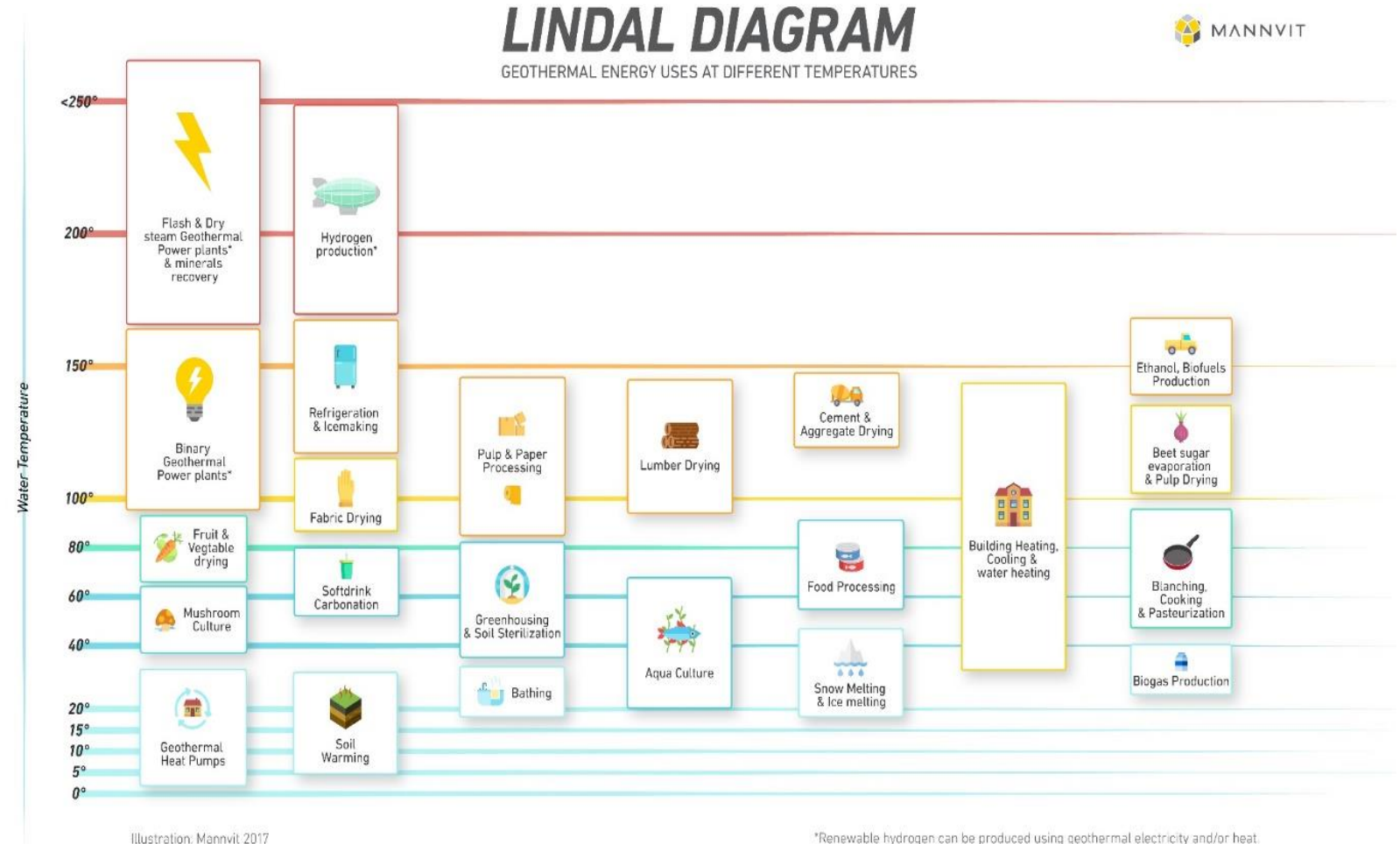
2. APPLICATION PROCESS – AWARDED PROJECTS



3. DIRECT USE

Direct utilization = immediate/non-electric use of geothermal energy

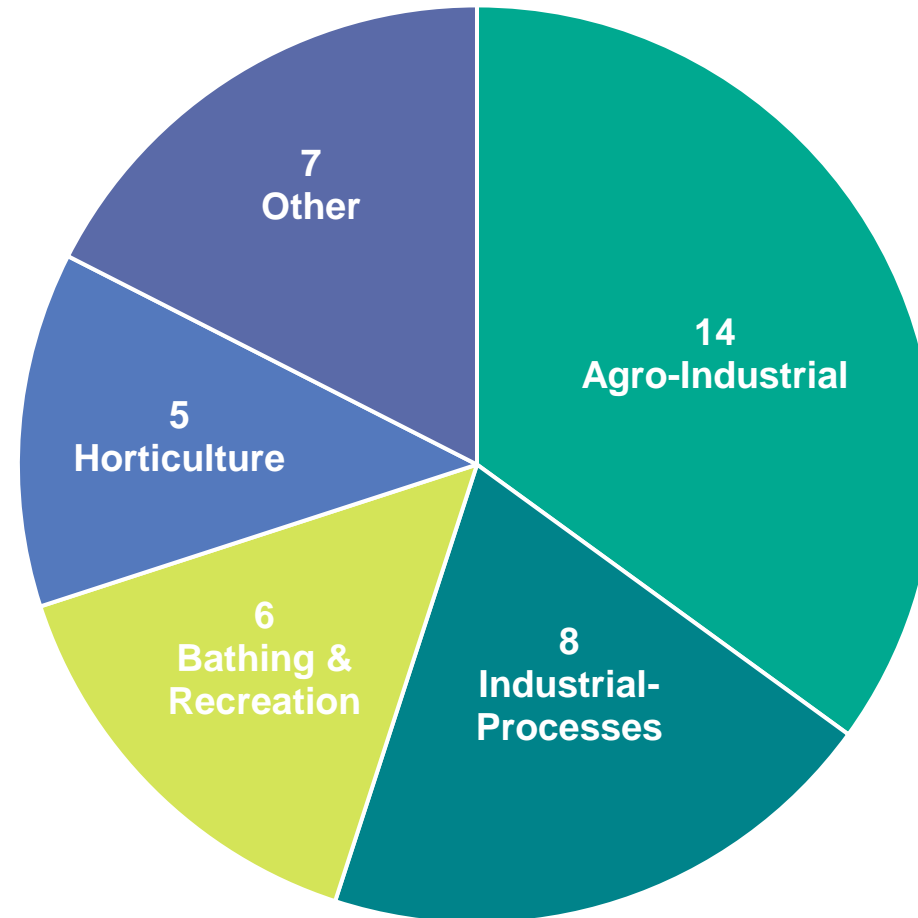
- Medium-low temperature systems are sometimes found in less depth
- Target temperature depends on planned application & offtake
- Seismic measurements are often useful to assess location of targeted aquifers



3. DIRECT USE



23 Pitches have shown 40 Direct Use Applications!



1: <https://africanexploremagazine.files.wordpress.com/2019/07/olkaria-spa-1-2-1200x800.jpg?w=800>
2: <https://tradercorp.com/es/en/wp-content/uploads/2019/02/Oserian.jpg>
3: IRENA. (2020). Geothermal Development in Eastern Africa: Recommendations. Abu Dhabi: International Renewable Energy Agency.
5-6: GDCI Geothermal Development Company

4. SOCIAL AND ENVIRONMENTAL BENEFITS

Social Benefits

- Prevention of malnutrition & contamination
- Increase of food security
- Improved quality of life
- Improved education
- Gender empowerment
- Job creation



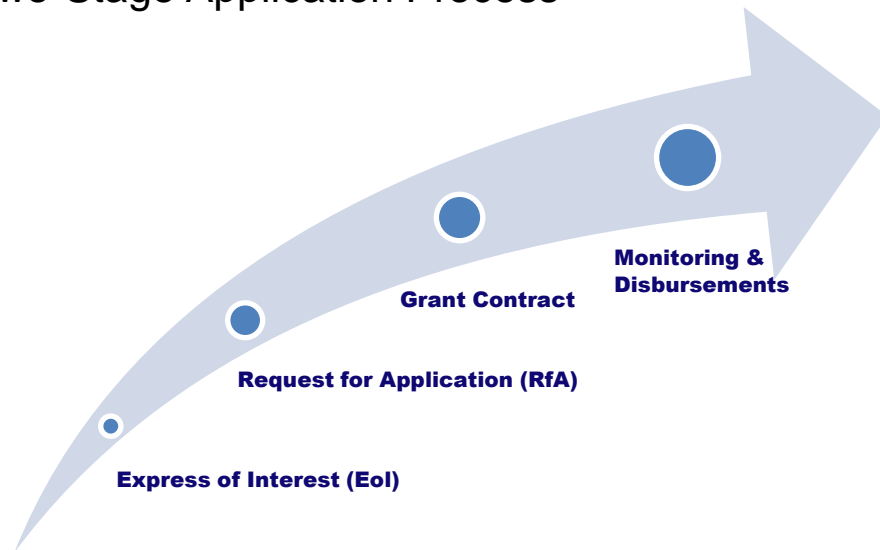
Environmental Benefits

- Reduced emissions
- Reduced deforestation
- Waste management



4. GRMF - DIRECT USE FACILITY

- Today's webinar aims to capture the current and future market situation for direct use projects **to set up a funding programme.**
- Focus on **Surface Studies & Drillings**
- **Separate** Application Round for Direct Use
- Two-Stage Application Process



Thank you for your attention!



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