

»» Geothermal Risk Mitigation Facility: An alternative way to finance geothermal development

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KfW



European Union Africa
Infrastructure Trust Fund



Federal Ministry
for Economic Cooperation
and Development

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»» Overview of Geothermal Energy

Key features of geothermal energy



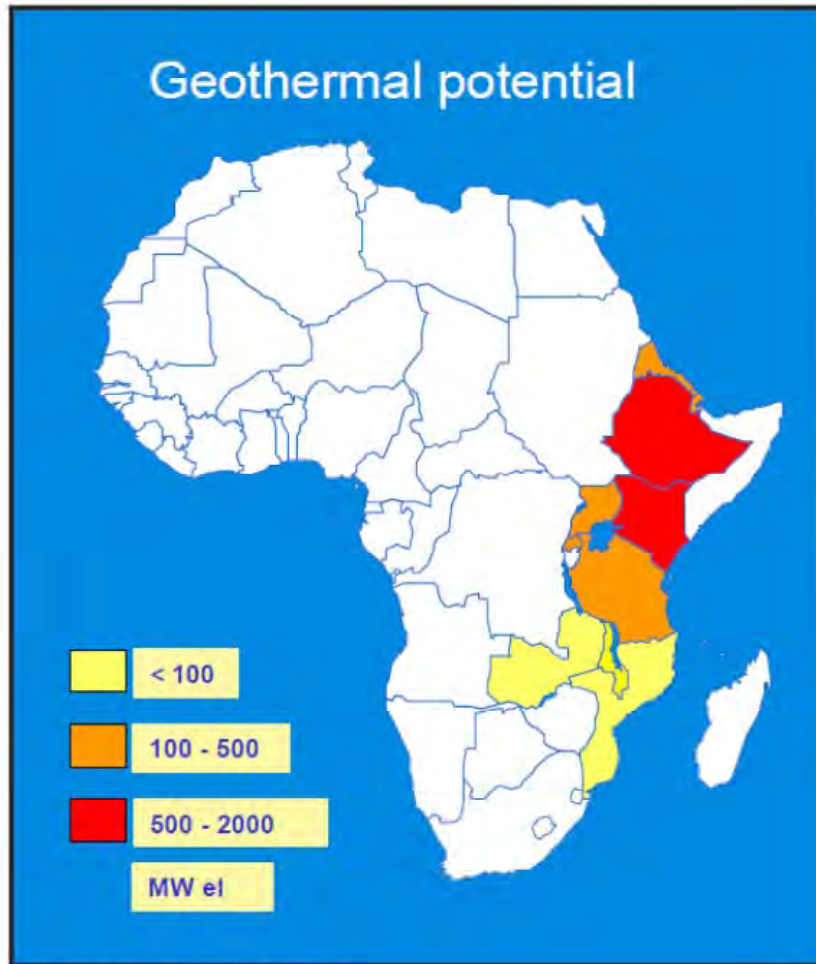
Source: ESMAP 2012

Geothermal Energy is...

- a renewable source of energy: the use of hot steam or water under high pressure
- mostly located close to boundaries of tectonic plates
- Environmentally friendly due to its fossil-fuel-free nature
- A stable source of base-load power
- competitive in terms of cost per kilowatt hour
- a longterm project with high upfront costs

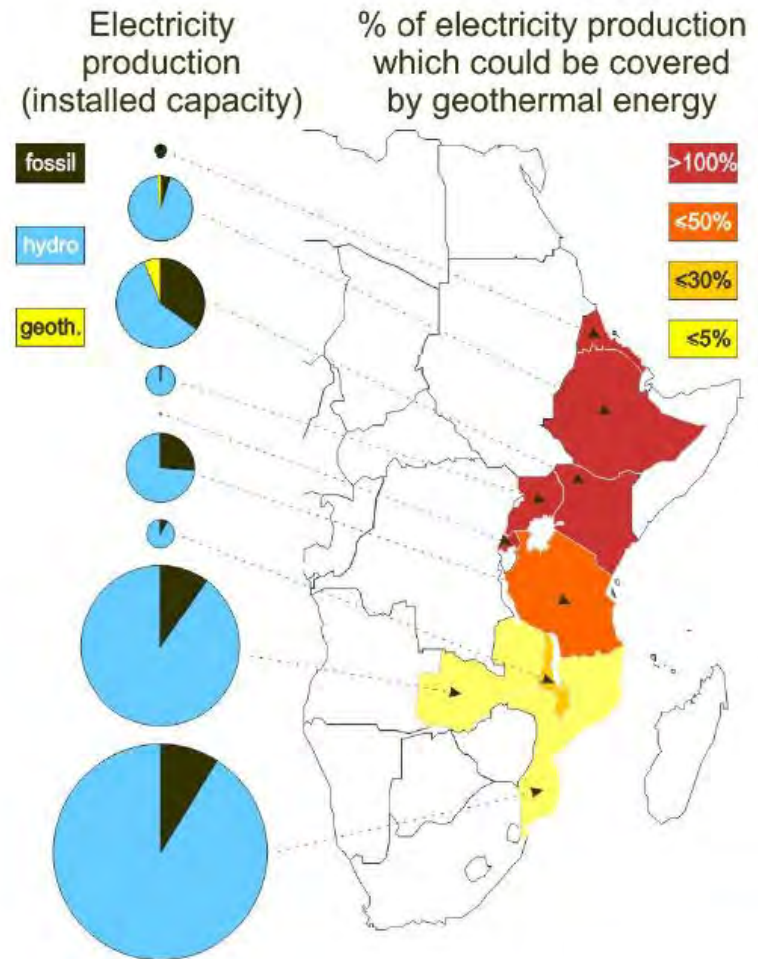
»» Overview of Geothermal Energy

High Potential, but low usage in the East African Rift Valley



MW el = Mega Watt electric

Source: BGR 2013



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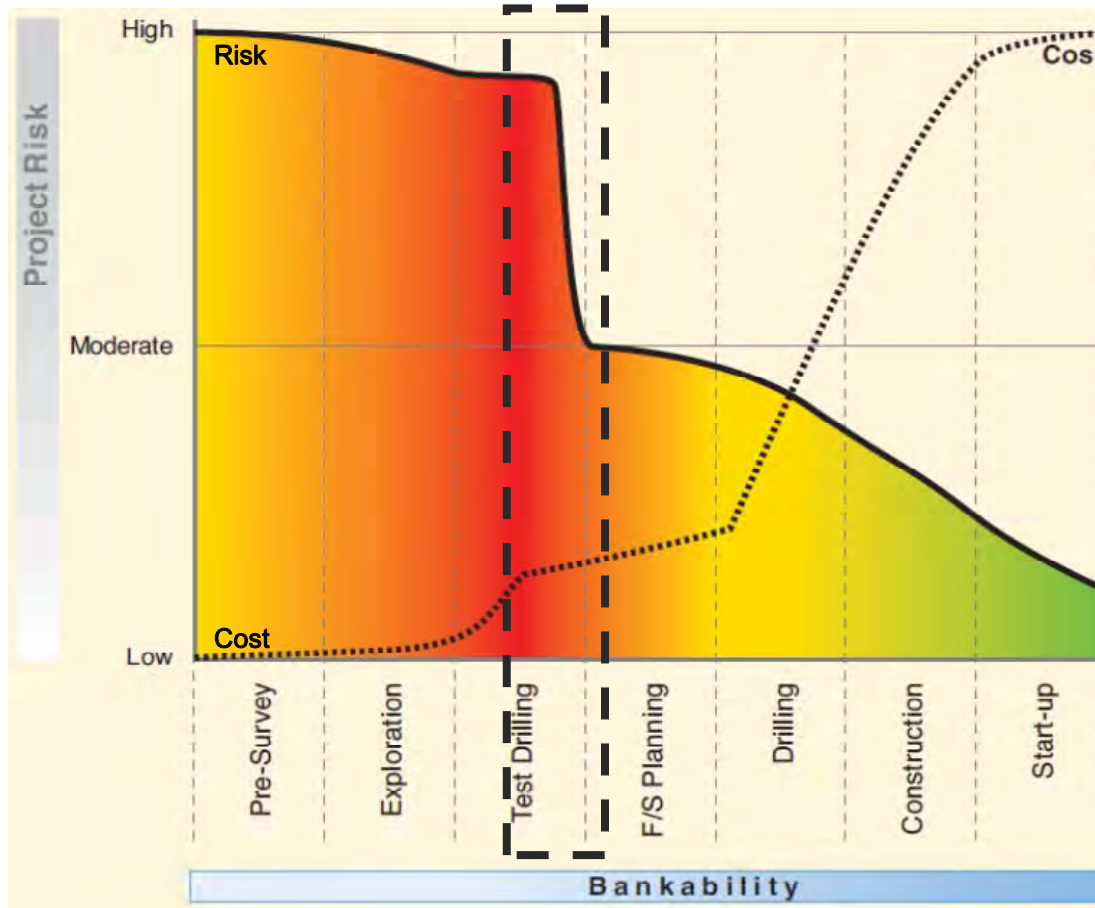
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»» Low bankability during exploration phase
High and risky Upfront Investment Costs



Source: ESMAP 2012

Significant upfront costs at high risk – before the success of the project has been secured !



Public and private investors could avoid investments in Geothermal Energy



Public support mechanisms are crucial to remove entry hurdles into geothermal power development

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AUC's role & mandate



Commission of the African Union

- Mandated by 11 East African countries to develop & manage a regional geothermal program
- Chosen to host & manage the GRMF

Policy guidelines including institutional and regulatory framework

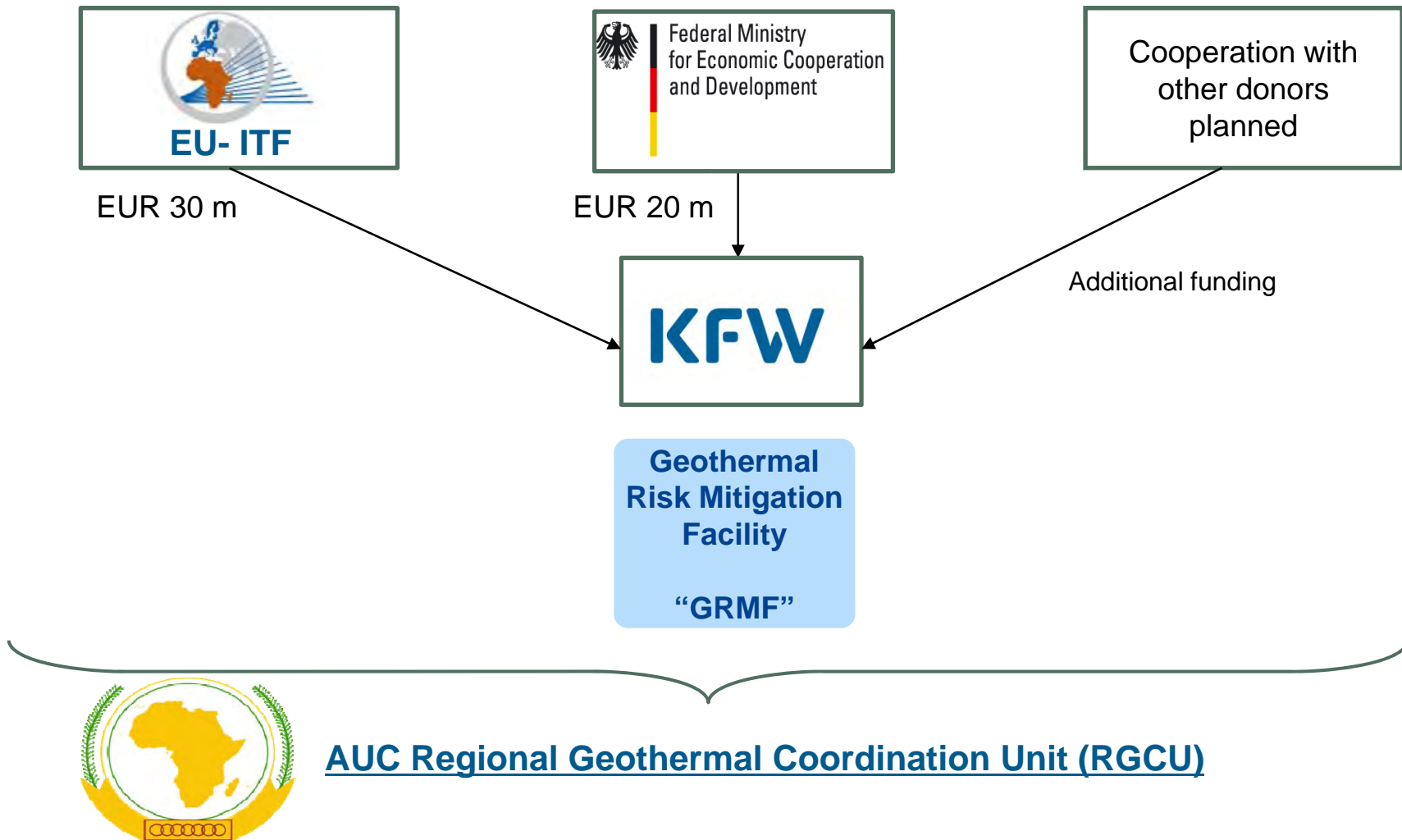
Regional Road Map

Regional Geothermal Coordination Unit (RGCU)

- Providing Information
- Coordination of countries, developers, donors, etc.
- Evaluation of geothermal projects for the GRMF

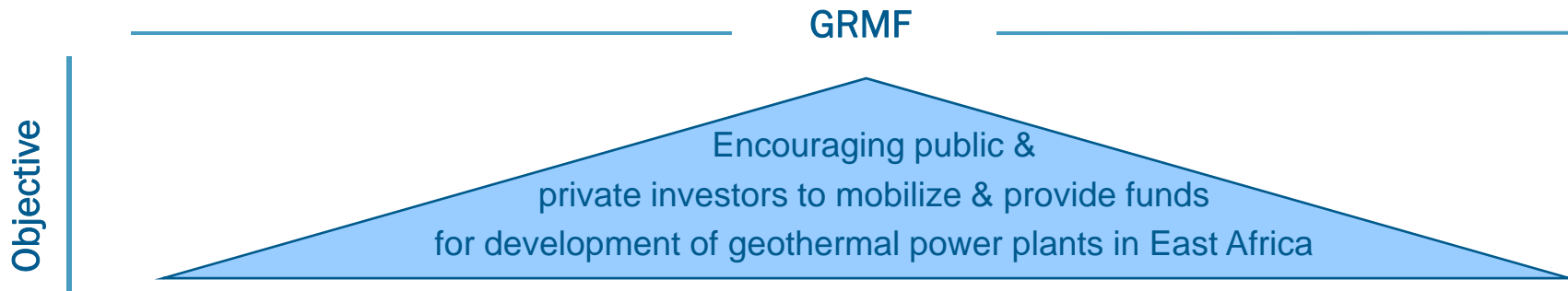
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Project Design of the GRMF



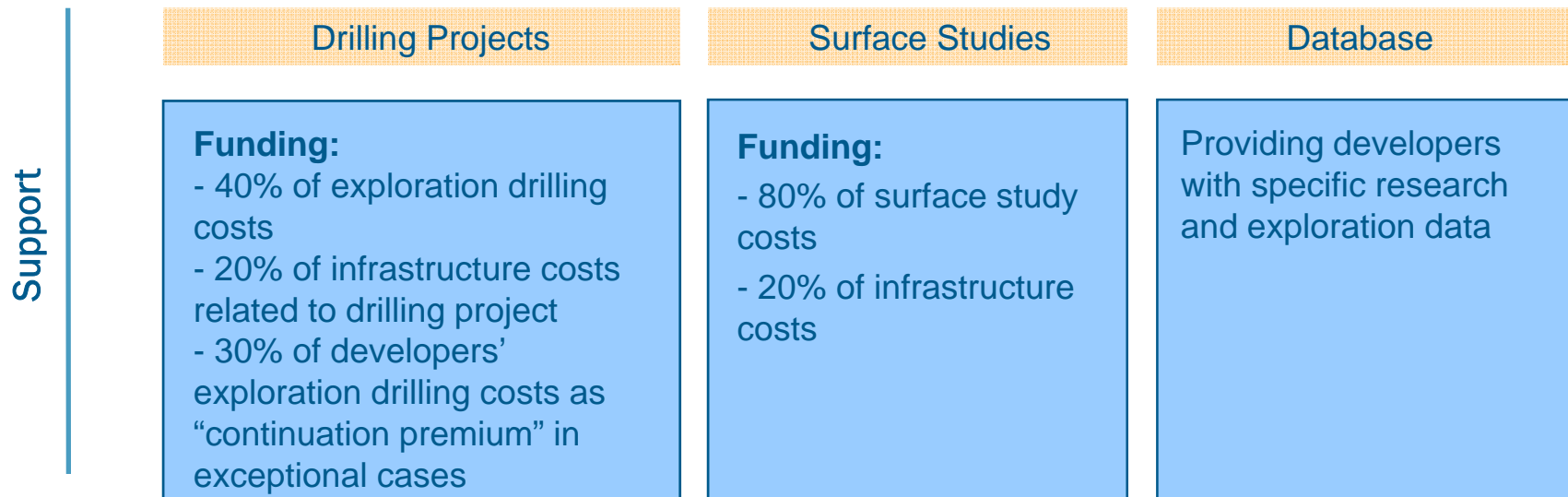
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Objective



Pilot Countries: Ethiopia, Kenya, Rwanda, Tanzania, Uganda

Additional countries second round: Burundi, Comoros, Djibouti, DRC, Eritrea & Zambia



»» Concept of the Geothermal Risk Mitigation Facility

Key features

1

Strong African ownership

- AUC leadership
- Country representation

2

Transparent application and assessment procedure

- Oversight Committee (Members: 3 AUC, 1 target country, 1KfW)
- Comprehensive procurement and application guidelines

3

High quality project pipeline

- Support of the best projects in a cross-border competitive process
- Public and private developers are competing for the same funds
- Thorough selection through experts
- Continuation premium to incentivise execution of projects

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Overview

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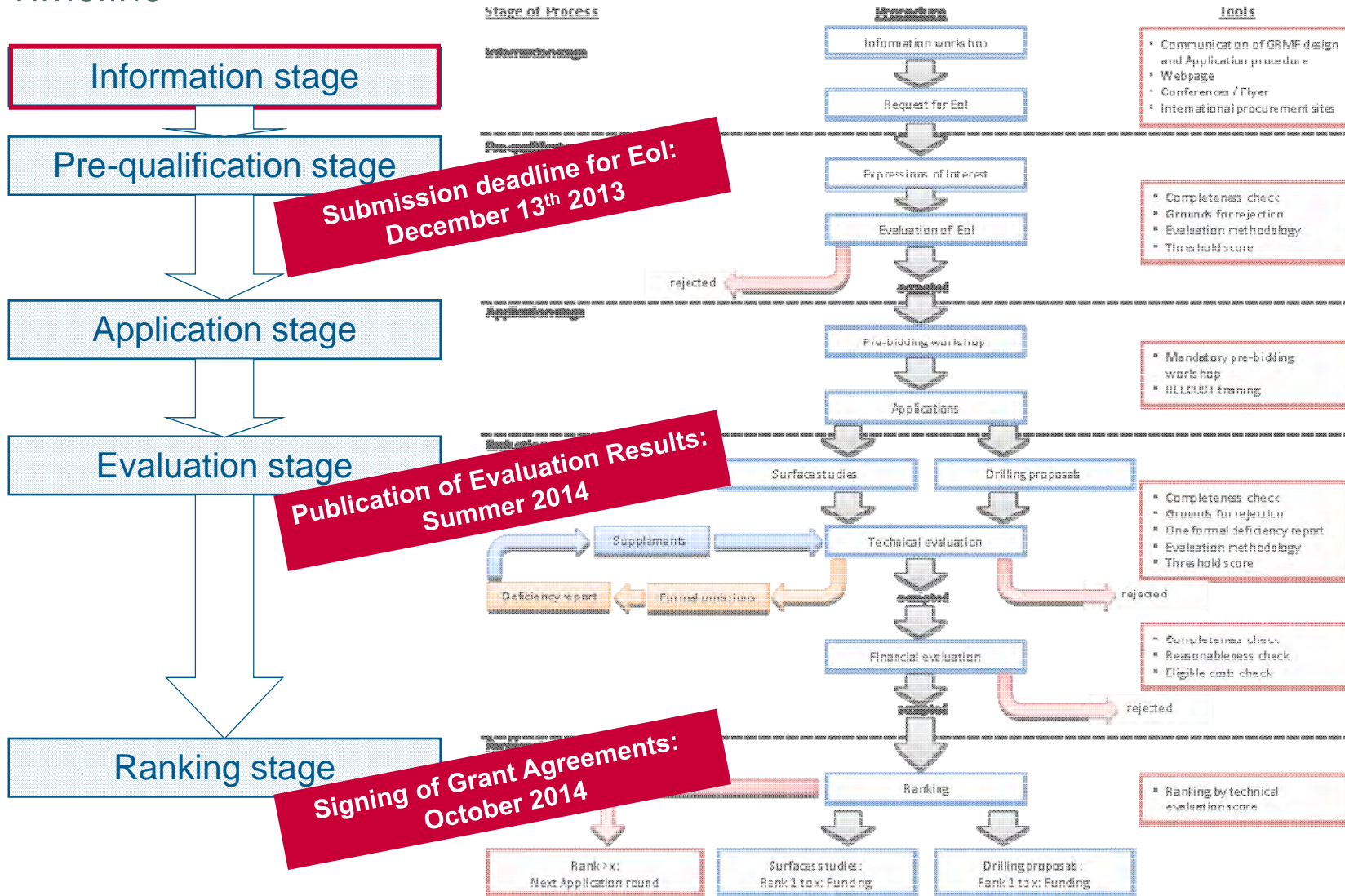
- Competitive two-stage Application process (Expression of Interest + Application)
- It is planned to conduct at least 3 application rounds
- One application round including prequalification each year
- Application procedure takes approximately one year

Round 2013

Grant Agreements with successful Applicants are expected to be signed in October 2013

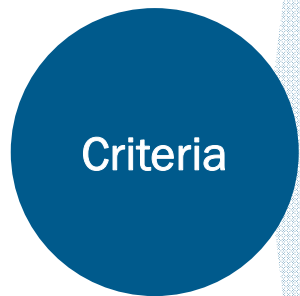
»» Outlook on the Second Application Round

Timeline



»» Application Procedure

Assessment Criteria



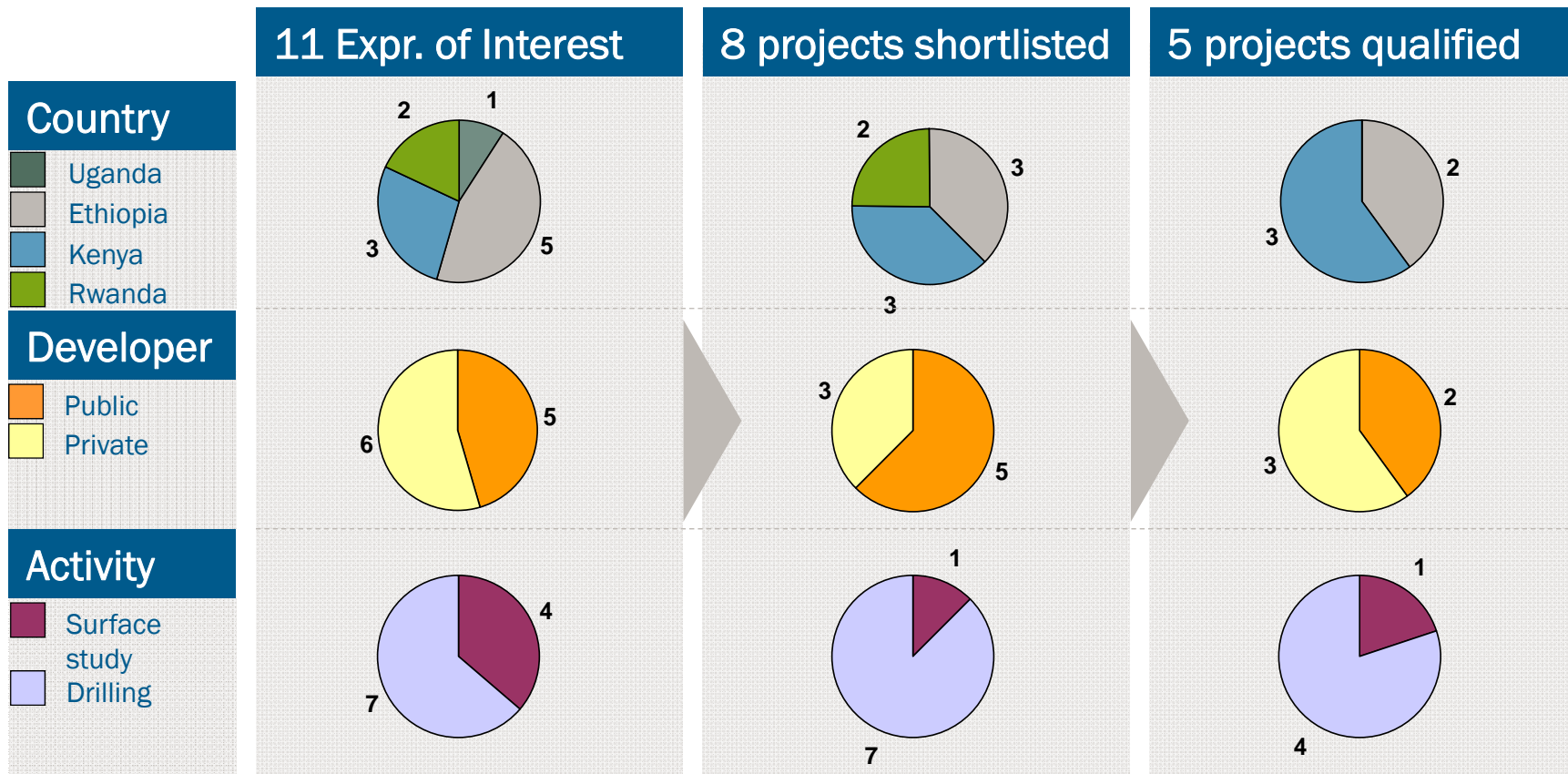
- 1 Legal Entity
- 2 Planned activity/project
- 3 Status of Concessions, licenses and permits
- 4 Status of geological, geochemical and geophysical studies
- 5 Infrastructure (already available & necessary)
- 6 Work Plan
- 7 Financing Plan
- 8 Offtaker Potential

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»» Review of the First Application Round

Expr. of Interest from 4 countries promise continuous progress in the region



- 11 Eols from 4 out of 5 eligible countries
- Private, public, regional and international developers
- 5 successful projects with grant volume of EUR 25 m

»» Outlook on the Second Application Round

Outlook

Outlook

- Still funds available for application round 2
- Extension to 11 countries:
 - Burundi, Comoros, Djibouti, DRC, Eritrea & Zambia now eligible
- Cooperation with other donors
 - Discussions about additional funding for GRMF
 - Workshop for alignment of donor activities in the region
- Focus on capacity building in the region for
 - Governments
 - AUC and other institutions
 - Developers



»» Thank You for Your Attention!