Pre-Conference Short Course, 9th African Rift Geothermal Conference
Djibouti Palace Kempinski, 1st November – 2nd November 2022

# Enabling framework Conditions for geothermal agri-food applications

Jack Kiruja/ 1-2 November 2022

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# Legal and Regulatory frameworks

**Regulatory frameworks**

- Right to explore and develop underground resources
- Environmental and social considerations
  - Simplified
  - Under one roof

**Examples**

- Ethiopia
- France and Chile
- Hungary
- Indonesia
- Costa Rica, El Salvador, Colombia

# Policy instruments

**Competitive Heat Tariff**
- Acceptable to both the enterprises and the geothermal developer
- Used to enhance the bankability of the energy supply business and support the developers to obtain financing

**Tax Incentives**
- Exemptions on the purchase of equipment
- Lower system costs for operators
- Support the sustainable operation of agri-food businesses

**Subsidy Scheme**
- Compensate operators of heat plants for the difference between the cost of generating renewable heat and the prevailing market price of heat

**Risk Mitigation and Insurance**
- Grant-based schemes more suitable for nascent markets
- Insurance-based schemes more suitable for mature markets

# Cross-sector alignment

**Alignment of policies across different sectors**

- Conflict in internal mandate
- Energy vs agri-food and industrial sectors
- Geothermal heat master plan/ sector roadmap to provide direction, clarity and predictability
  - Capacity targets
  - Opportunities and challenges
  - Policy and financing measures
  - Stakeholder engagement and management
  - Capacity building needs

# Cross-sectoral alignment


**CTCN – Uruguay National Roadmap for Direct-Use Geothermal Energy**

- Published in 2020, aims to increase the deployment of low-temperature geothermal in the industrial, residential and commercial sectors in Uruguay.
- Analyses the current status of geothermal energy in the country, identifies existing barriers to implementation and proposes measures to overcome them.

**Geoheat Strategy of AOTEAROA New Zealand**

- Covers the period 2017 to 2030 and aims to achieve two main objectives:
- Realise a 7.5 petajoule (PJ) annual increase in the use of geothermal heat in new projects by 2030.
- Create 500 new jobs in new projects due to the use of geothermal heat by 2030.

**Netherlands Geothermal Energy Master Plan**

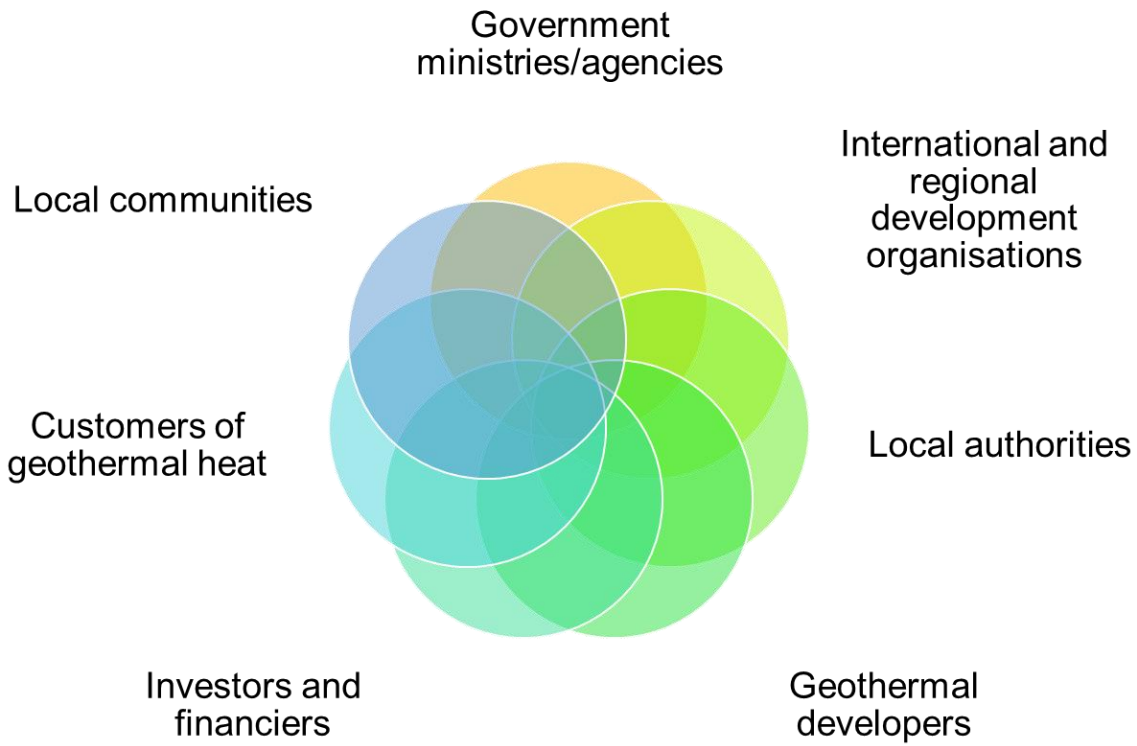
- Establishes a plan for increasing production of geothermal energy in the Netherlands from 3 PJ to 50 PJ in 2030 and more than 200 PJ in 2050.
- Sets a target that by 2050, geothermal energy will supply an estimated 65% of the demand for heat in greenhouse horticulture.

- Nationally Determined Contributions (NDCs)
- Longterm low-carbon strategies
- Alignment of national and local priorities

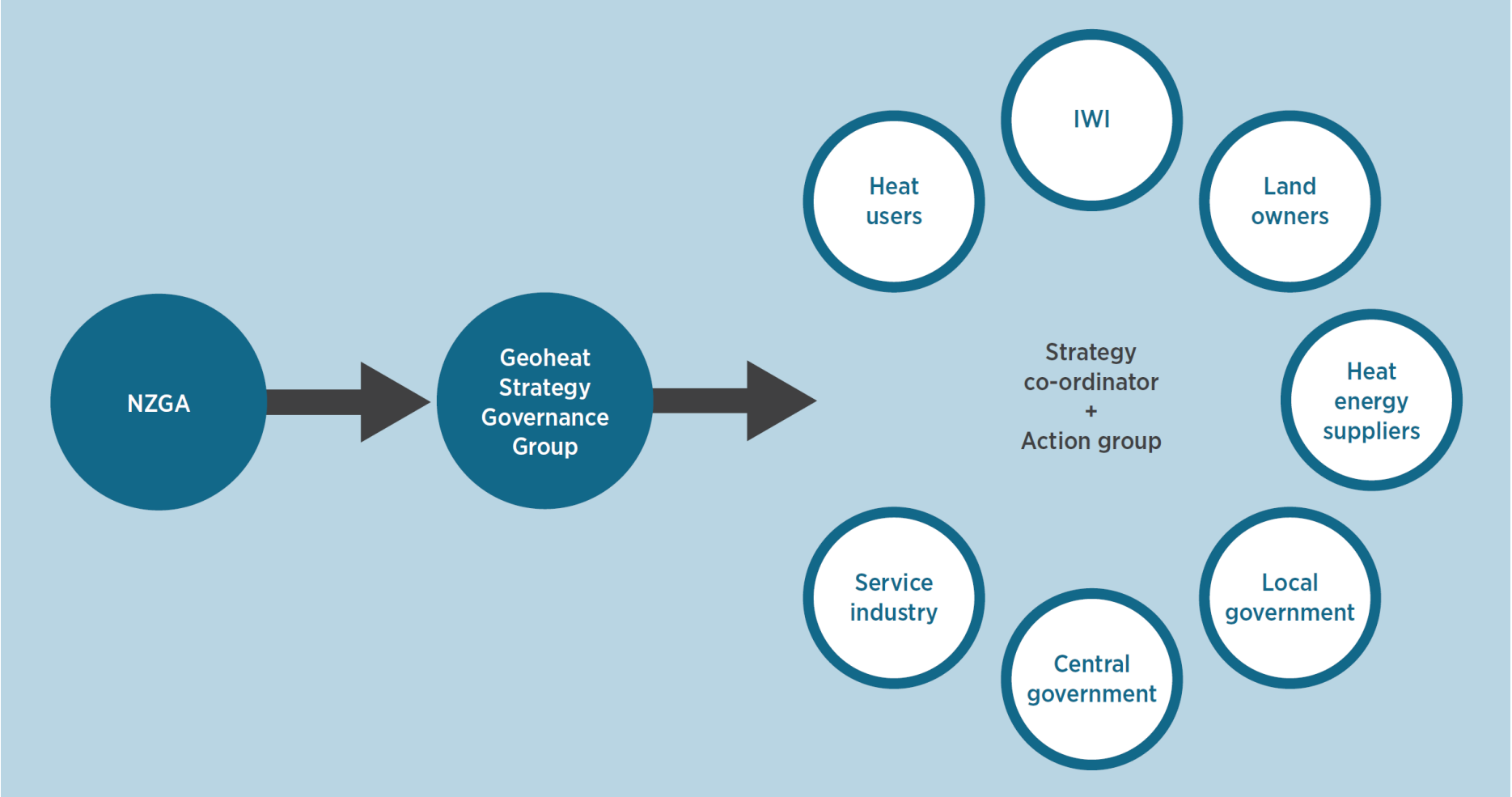
# Stakeholder coordination

**Multiple stakeholders engagement**

- Multiple stakeholders with diverse interest
  - Identify stakeholders
  - Classify based on influence and importance
  - Devise strategy for engagement
  - Establish leadership structure for engagement

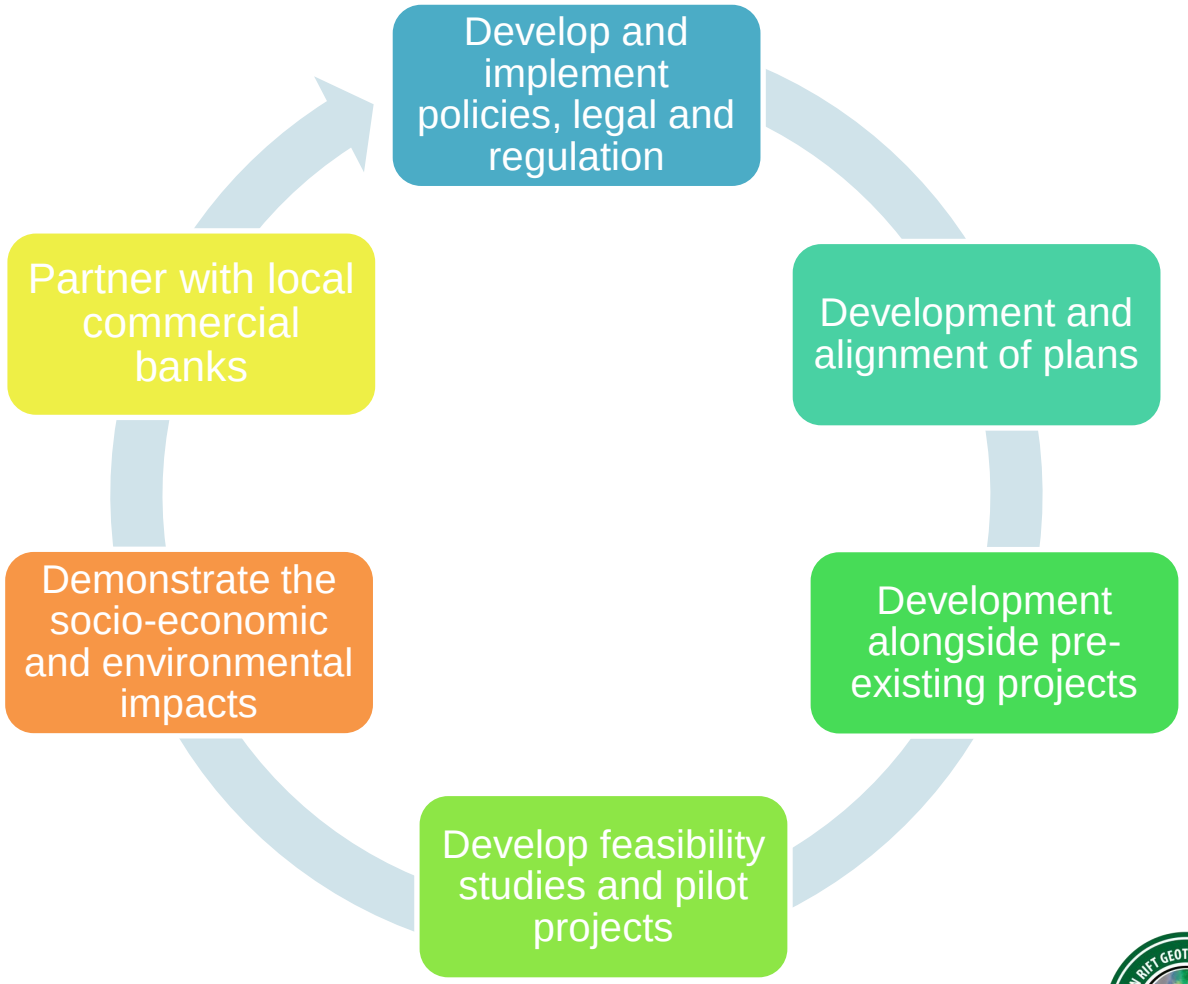


# Stakeholder coordination



# Financing

- Legacy financing options: government, loans, grants, equity
- Climate financing options + tailored financing by IFI and bilateral institutions
- Economic recovery stimulus programmes
- Local commercial banks
  - Turkiye



# Financing

| Climate Investment Platform (CIP) | Energy Transition Accelerator Financing Platform (ETAF) |
|---|---|
| ✓ Online multi-stakeholder platform for registration of renewable energy projects as well as investors/financiers interested in supporting projects that are furthering the energy transition.<br>✓ Project facilitation support for the establishment and implementation of ambitious climate commitments and enabling frameworks at the country level.<br>✓ Matchmaking between projects and investors as well as risk mitigation through technical assistance to achieve bankability. | ✓ USD 1 billion facility to support the energy transition by addressing existing financing gaps.<br>✓ Co-financing or co-investment to all sizes of projects in developing countries on demand.<br>✓ Established with seed capital of USD 400 million from the ADFD and envisages raising the balance from multiple stakeholders during 2022-2023 and leveraging IRENA expertise to support project developers. |

# Thank you

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