

AFRICA RENEWABLE ENERGY INITIATIVE

AREI

Transitioning Africa to a
renewable energy powered
future with access for all



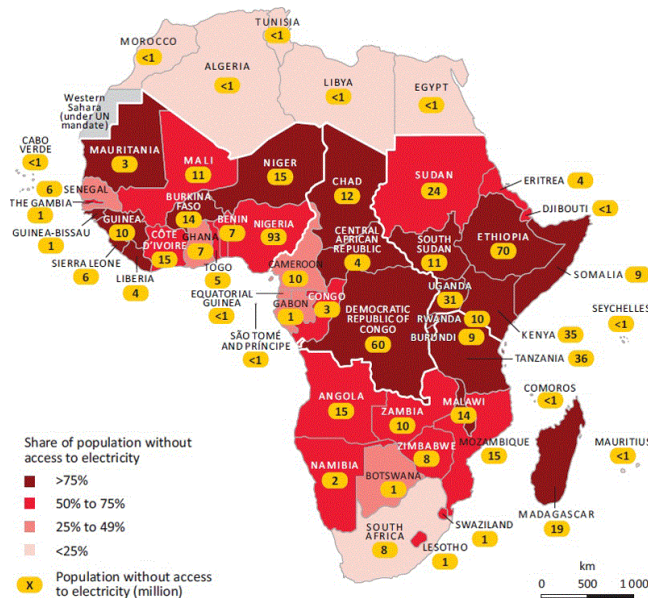
AREI is...

- A **Vision** and a **Framework**
- Africa-led & **sustainable development** oriented
- Explicitly addresses needs of major **productive sectors**
- **Development** focused/**climate** compatible
- Open to wide **participation** and **collaboration**
- A **multi-stakeholder** effort committed to accelerated transition of Africa's energy-economies
- A **framework** that cultivates **partnerships** and **synergies** among **existing and future RE efforts**

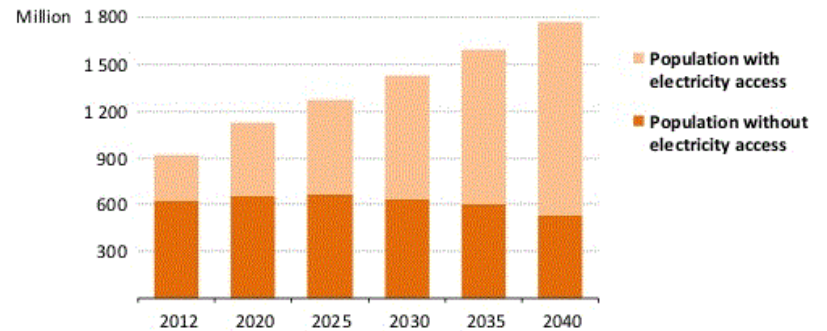
AREI CONTEXT

THE ENERGY ACCESS GAP

Share of population without electricity access



Future access situation: BAU scenario



- Huge implications on human well-being, employment and prospects for sustainable development

IMPORTANCE OF ENERGY FOR AGRICULTURE AND FOOD

Agricultural sector

- 60% employment
- 19% value added
- 40% hard currency earnings

...energy-related limitations

- Minimal mechanization
- Low productivity

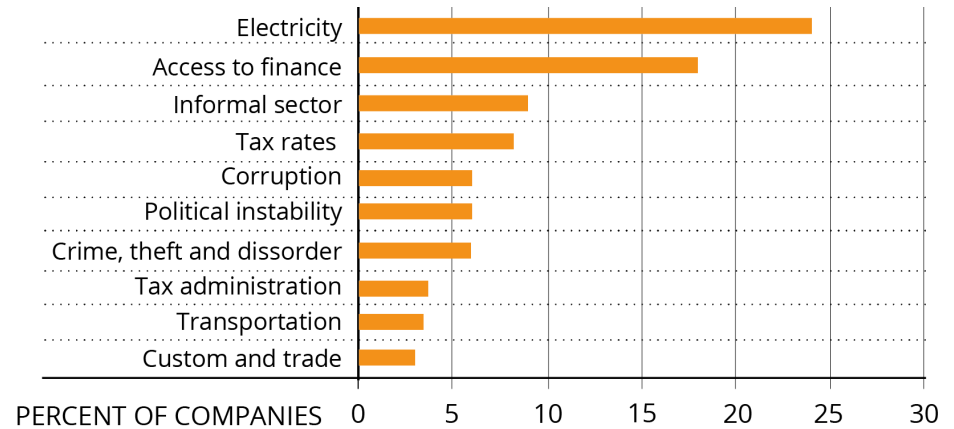
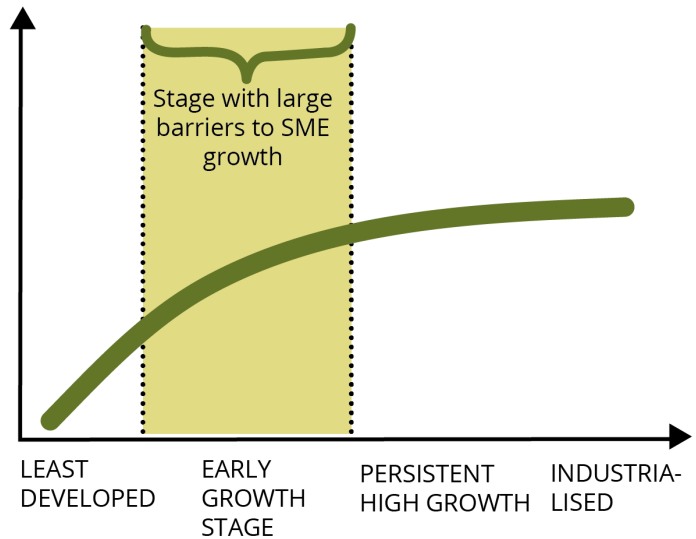
Designation	Africa	Latin America	Europe	World
Tractors	523,917	1,765,242	10,737,469	25,530,184
Agricultural workers/tractor	394	24	3	51
Hectares/tractor	2,113	67	45	187

THE IMPORTANCE OF ENERGY FOR MSMEs

SME sector potential

...energy-related limitations

THE ROLE OF SMEs IN ECONOMIC GROWTH



AREI

GOALS AND PRINCIPES

GOALS

ENERGY ACCESS...

help achieve the Sustainable Development Goals, enhanced well-being, and sound economic development by **ensuring universal access to sufficient amounts of clean, appropriate and affordable energy**

...CLIMATE

help African countries **leapfrog towards renewable energy systems that support their low-carbon development strategies** while enhancing economic and energy security

EXPECTED TRANSITION

ACROSS THE CONTINENT...

*At least **300 GW**
by 2030 of new
and additional
installed capacity
with an initial **10
GW by 2020***



MORE SPECIFICALLY

- Increase **absolute number of users** connected to the national grids or new mini-grids
- Increase **absolute share of RE** of energy consumption in productive sectors: agriculture, industry, and services
- Increase in the **share of local/African firms** providing RE equipment & supply on the continent

GUIDING PRINCIPLES

Contributing to achieving SD in Africa

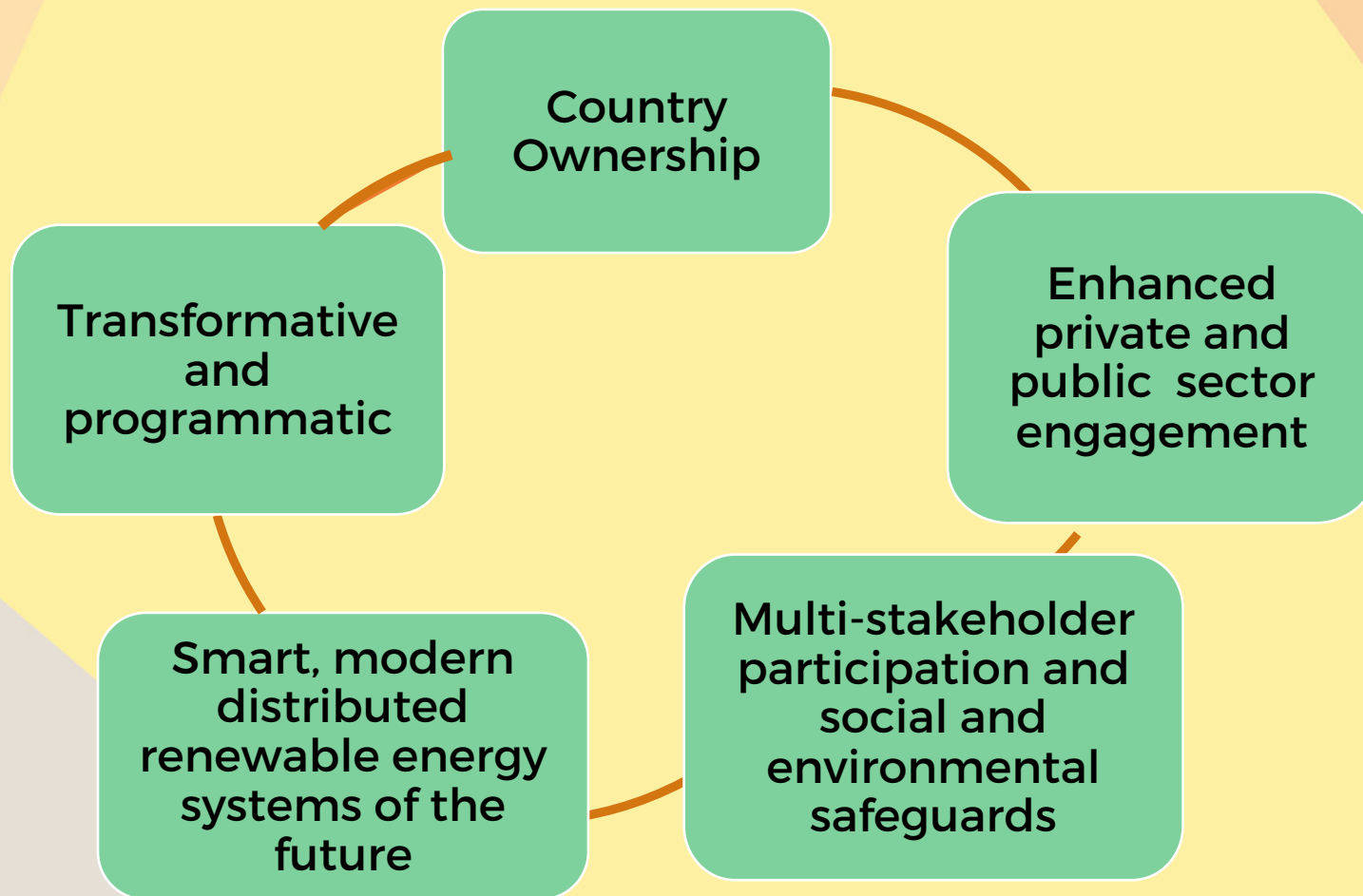
Promoting the full range of renewable electricity applications, as well as non-electrical forms of energy

Addressing the entire African continent and benefit all African countries.

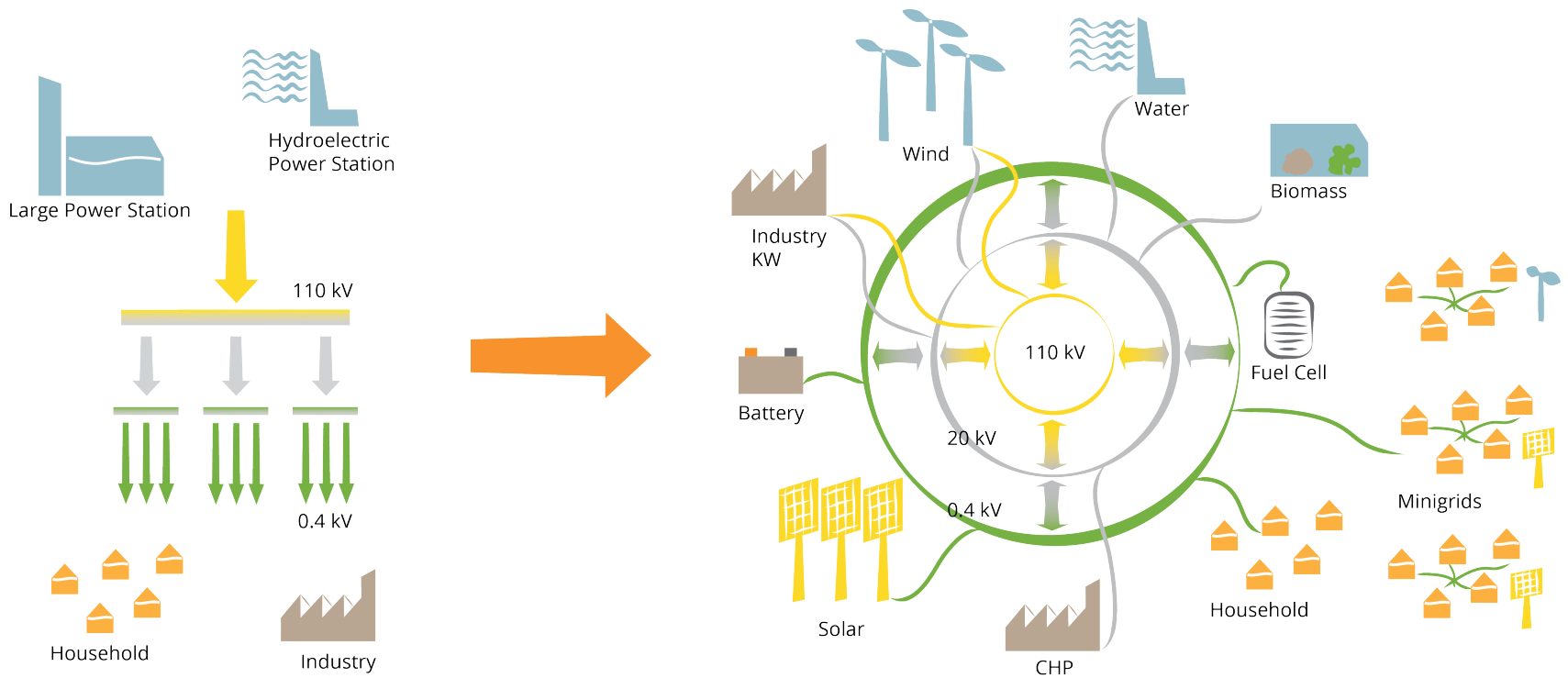
Promoting all kinds of renewable energy technologies

Boosting intra-regional cooperation

KEY PRECEPTS

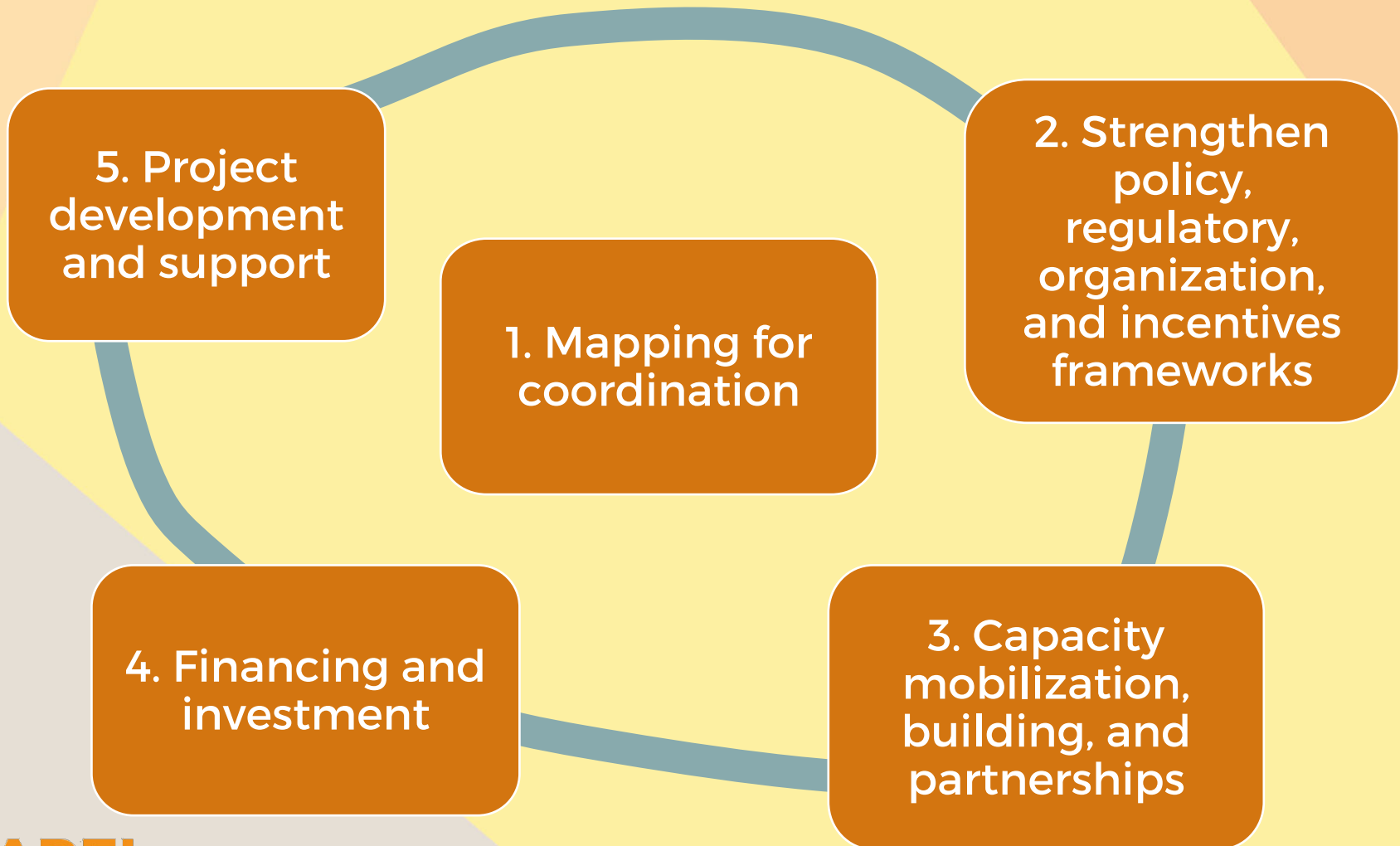


DISTRIBUTED, DECENTRALISED, PEOPLE-CENTERED ENERGY SYSTEMS OF THE FUTURE

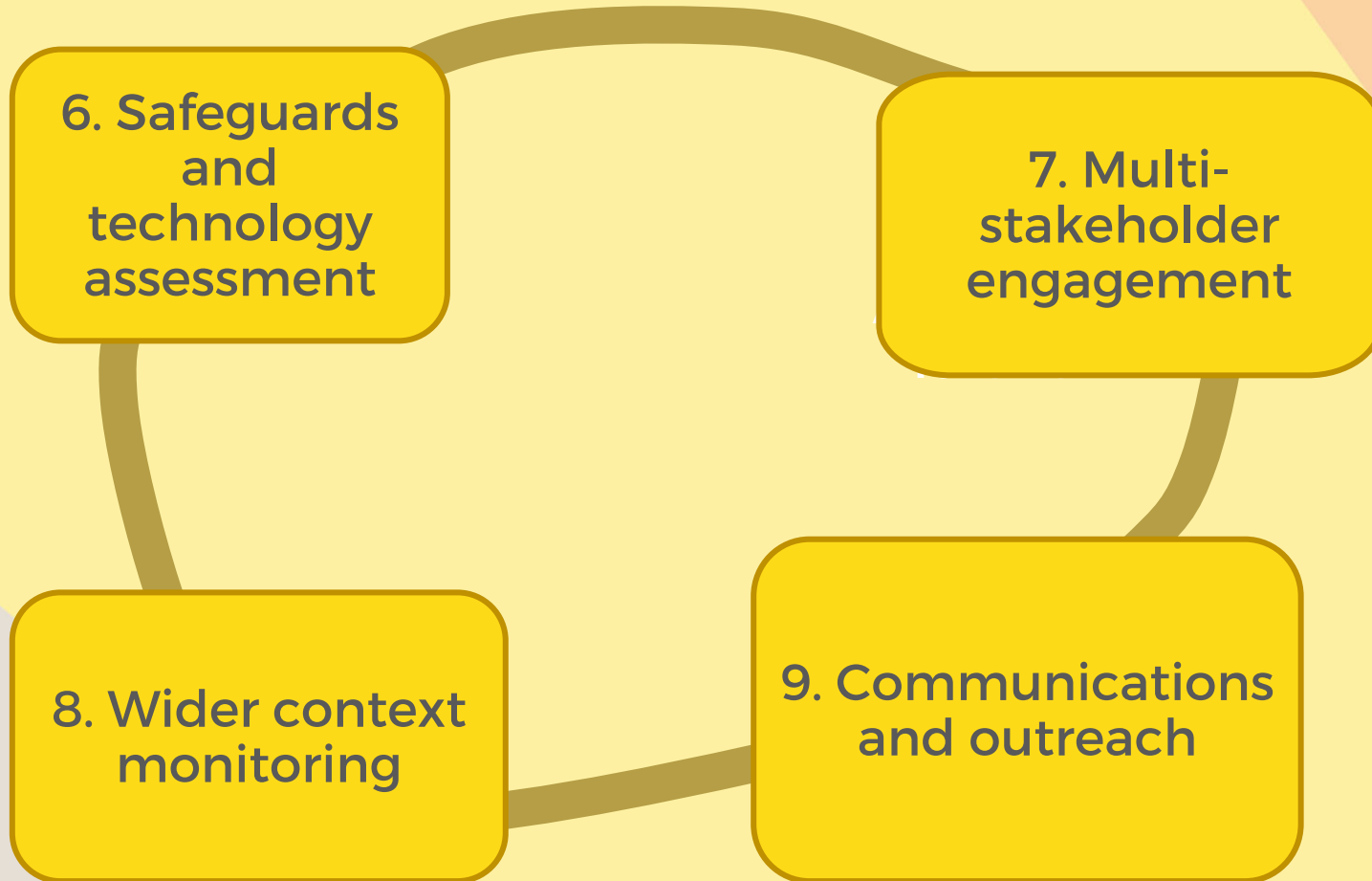


KEY DRIVERS FOR TRANSFORMATION

TRANSFORMATIVE CORE WORK AREAS



TRANSFORMATIVE CROSS-CUTTING WORK AREAS



TIMELINE

The Action Plan envisages a three-phase implementation process:

- The **immediate establishment phase (2016-17)**: Formal implementation of the AREI, including establishment of the Independent Delivery Unit (IDU).
- **Phase I (2017-2020)**: Assessments, preparations and critical enabling activities at the continental African level as well as in a number of pioneering countries, setting the basis for enhanced acceleration in phase II. Enabling of appropriate RE projects already in the pipeline. Achievement of at least 10 GW new and additional generation capacity.
- **Phase II (2020-2030)**: Ambitious ,full-scale roll-out of nationally determined policies, programs and incentives as initiated under Phase I. Continuous assessments and revisions for further scaling up. Achievement of at least 300 GW new and additional generation capacity.

WHAT IS HAPPENING?

**MAPPING for
ACTION**

WHY MAPPING?

- **Proliferation of initiatives** on renewable energy in Africa
- Concern that **initiatives are fragmented** and uncoordinated
- Missed **opportunities** for delivering **greater impact**
- Danger of **duplication**



- **AREI** is using mapping to assess **gaps, priorities** and make **decisions**
- **AREI mapping exercise builds on existing mapping efforts**
- **Mapping builds synergy, collaborations & anticipate change**



Renewable Energy Initiatives in Africa

AREI Work Areas

Initiatives which focus on any of the highlighted Work Areas

Mapping of Initiatives

Strengthening Policy Support

Capacity Mobilization and Building

Funding and Financing

Project Development Support

RE Technology Assessments

Multi-Stakeholder Engagement

Wider Context Monitoring

Communications and Outreach

Countries & Regions

All Countries and Regions

Partner Organizations

All Partners

Donor Countries

Options for sorting initiatives

All Organizations



All RE Initiatives

83% ACP-EU Energy Facility

2% Acumen

48% Africa Enterprise Challenge Fund (AECF)

6% Africa Renewable Energy Initiative

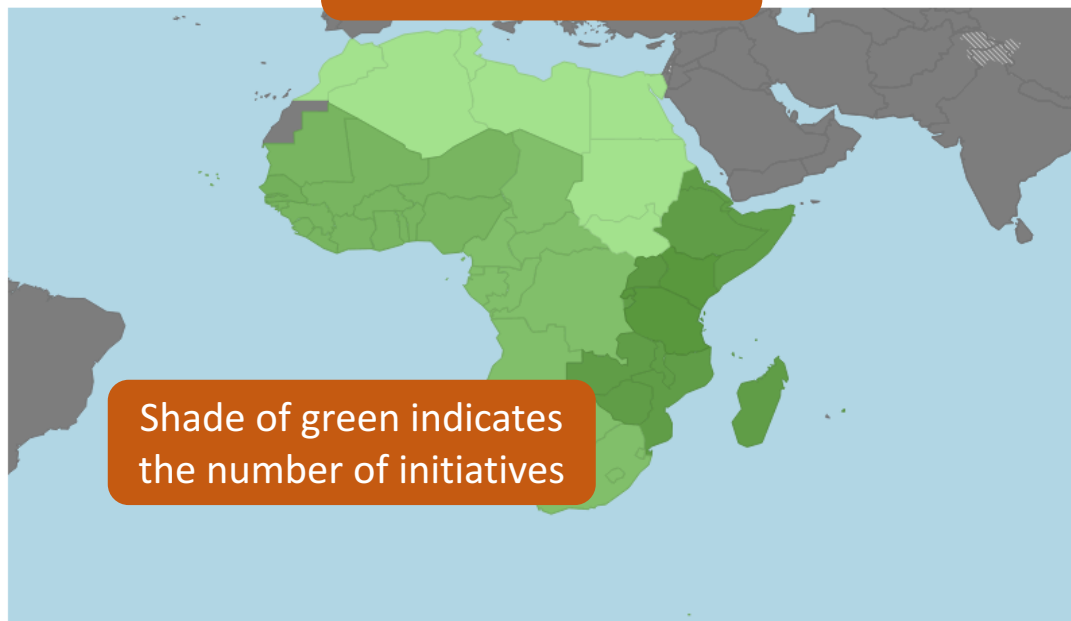
18% Africa50

18% African Renewable Energy Fund (AREF)

55% Aildwych International

List of renewable energy initiatives

1 2 3



Renewable Energy Initiatives in Africa

AREI Work Areas: Initiatives which focus on any of the highlighted Work Areas, Mapping of Initiatives, Strengthening Policy Support, Capacity Mobilization and Building, Funding and Financing, Project Development Support, RE Technology Assessments, Multi-Stakeholder Engagement, Wider Context Monitoring, Communications and Outreach

Countries & Regions: Côte d'Ivoire, Partner Organizations: All, Donor Organizations: All Donors, All Organizations

Initiative details

RE Initiatives in Côte d'Ivoire

- 83% ACP-EU Energy Facility
- 2% Acumen
- 6% Africa Renewable Energy Initiative
- 18% Africa50
- 18% African Renewable Energy Fund (AREF)
- 55% Alldwych International
- 48% EU-Africa Infrastructure Trust Fund (ITF)

EU-Africa Infrastructure Trust Fund (ITF)
Duration: November 05, 2007 - November 05, 2028

Description

A fund that combines grants from the European Commission and EU Member States with loans from eligible financial institutions to support regional infrastructure projects. Areas of focus include energy, transport, water and sanitation, as well as ICT [I would spell this out] and regional or national SE4ALL projects. By end-2013, 92 grants had been approved (worth a total of USD 680 million) to support 69 infrastructure projects, including 37 energy projects (19 of which are renewable energy projects).

Countries and Regions	AREI Work Areas	AREI Sub Work Areas
East Africa (EAC) 16	Strengthening Policy	Main Grid Upgrades & Minigridd Rollout
West Africa (ECOWAS) 11	Funding and Financing	
Southern Africa (SADC) 9	Project Development Support	
Central Africa (ECCAS) 9		

of Donor Orgs: 4 AfDB

of Partner Orgs: 0

Description

Related AREI work areas

Donor and partner organisations

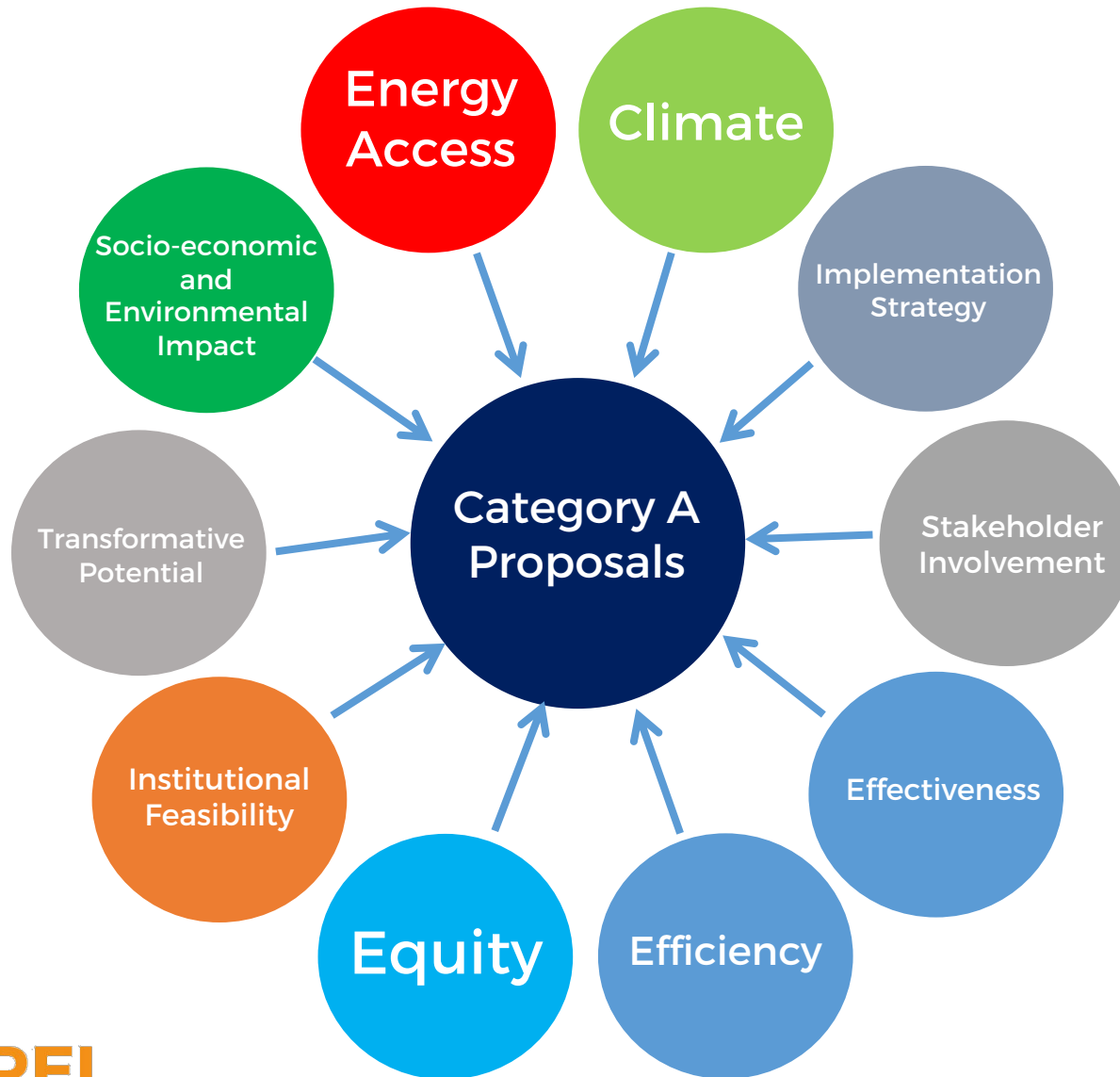
WHAT IS HAPPENING?

CRITERIA

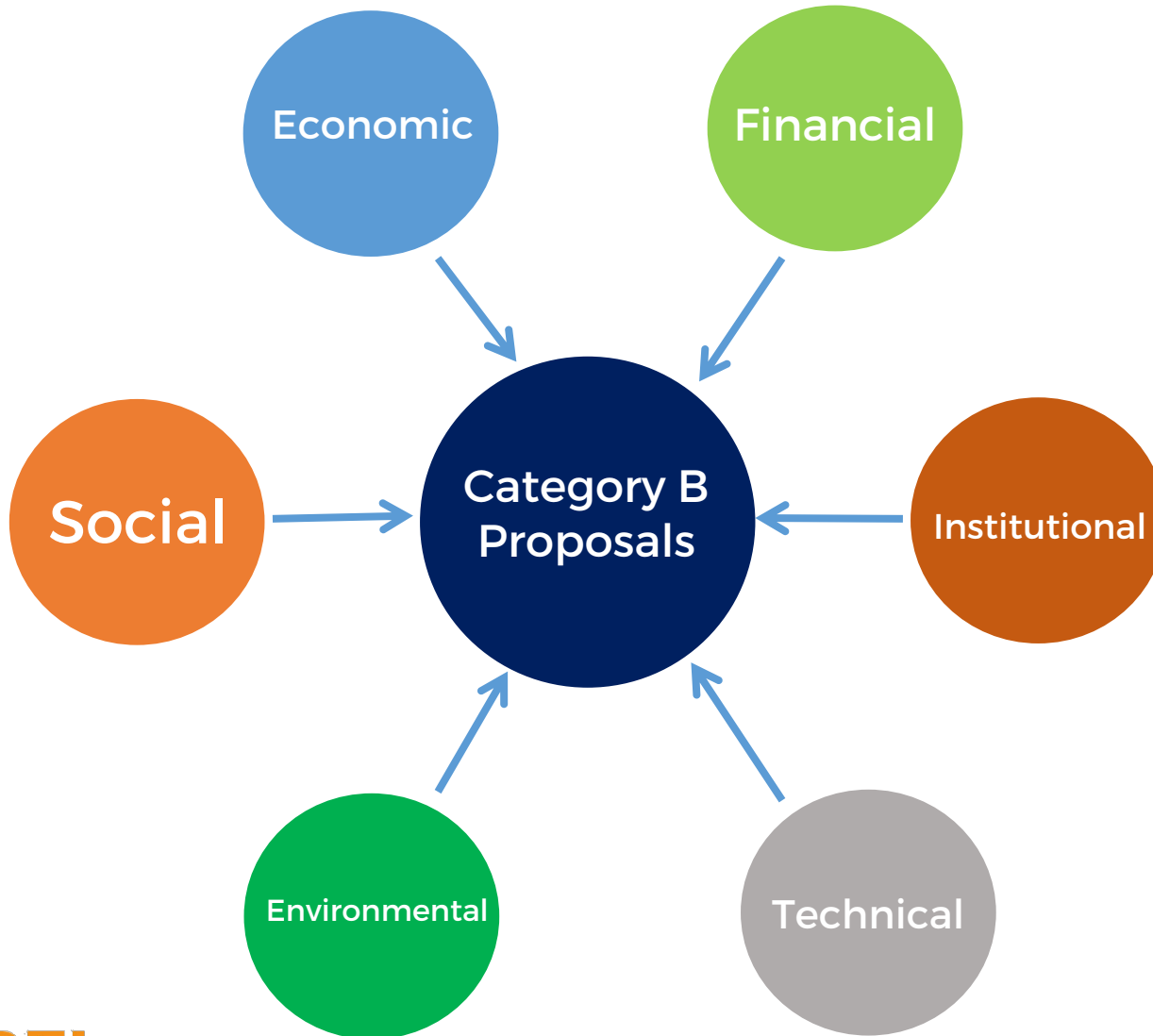
To be considered for attribution and eligibility/prioritization of funding

- Guiding principles and key features of the AREI
- Kinds of engagement through AREI
 - Activities through IDU & funds channelled through the AREI trust fund
 - Handle and assess external African proposals to be directly implemented by the AREI IDU and/or financially supported through the AREI trust fund
 - Adopt/attribute projects and programs pursued directly by countries or institutions and financial channels other than the IDU or trust fund that meets AREI criteria
- AREI methodology for assessment, prioritization and approval of projects/programs
 - Country-wide policies & programs, incentives & regulatory reforms (Category A)
 - Direct project support for individual RE systems and enhanced capacity (Category B)

AREI Policy Development Proposals



AREI RE Installation Proposals



OVERALL BALANCE OF AREI ACTIVITIES AND SUPPORT

- **Energy access** orientation
- **Size** of installations
- Type of **technology**
- Forms of **ownership**
- Spread of projects/programs across **countries** and **sub-regions**
- Fair **distribution** of supports
- **African** countries and institutions to predominantly be supported

WHAT IS HAPPENING?

**MULTISTAKEHOLDER
ENGAGEMENT and
SAFEGUARDS**

The AREI Framework and Criteria highlights the importance of participation and safeguards to ensure people-centred, equitable renewable energy solutions:

“Promoting a wide range of renewable energy technologies – in particular solar; wind; pico-, micro-, small- and medium-scale hydro; modern biomass; geothermal; and marine – provided they are **socially and environmentally appropriate, gender sensitive** and in line with these guiding principles”

Social and environmental safeguards

- **AREI** social and environmental safeguards, in line with **AREI Framework and Criteria**.
- Ambition to formulate the **best possible** safeguards, drawing on existing experiences and lessons across sectors
- AREI safeguards essential for **screening** against AREI criteria.
- Development of safeguards through **participation** and multi-stakeholder engagement.

WHAT IS HAPPENING?

**PROJECTS
LANDSCAPE**

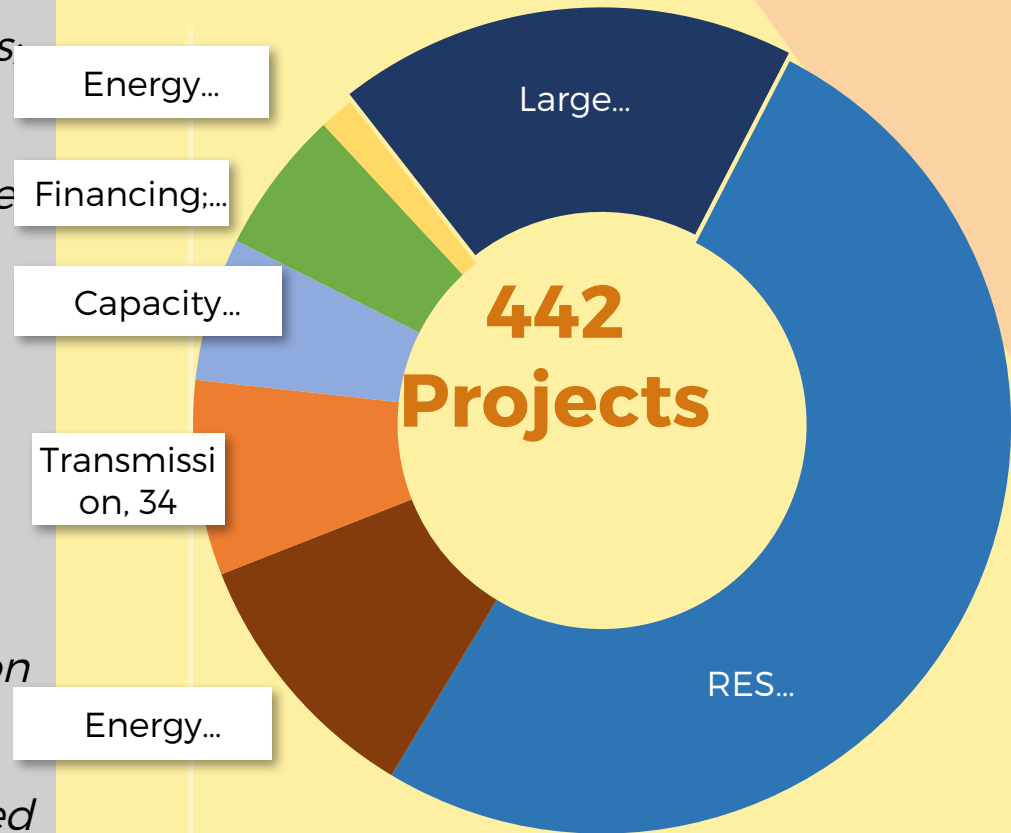
CURRENT PROJECTS LANDSCAPE

- **Countries and partners** are providing projects & programs
- **Preliminary** information gathered from multiple sources, This is **not** deemed **comprehensive**, and remains **work-in-progress**
- Projects & Programs will be subject to feasibility assessment and **screening** against **AREI criteria**
- We plan for a **dynamic AREI Database** - with continuous tracking and analysis
- This will be used to **mobilize** financial, project preparation and other necessary support through the AREI trust fund and from Partners.

CURRENT PROJECTS LANDSCAPE

Preliminary information received;

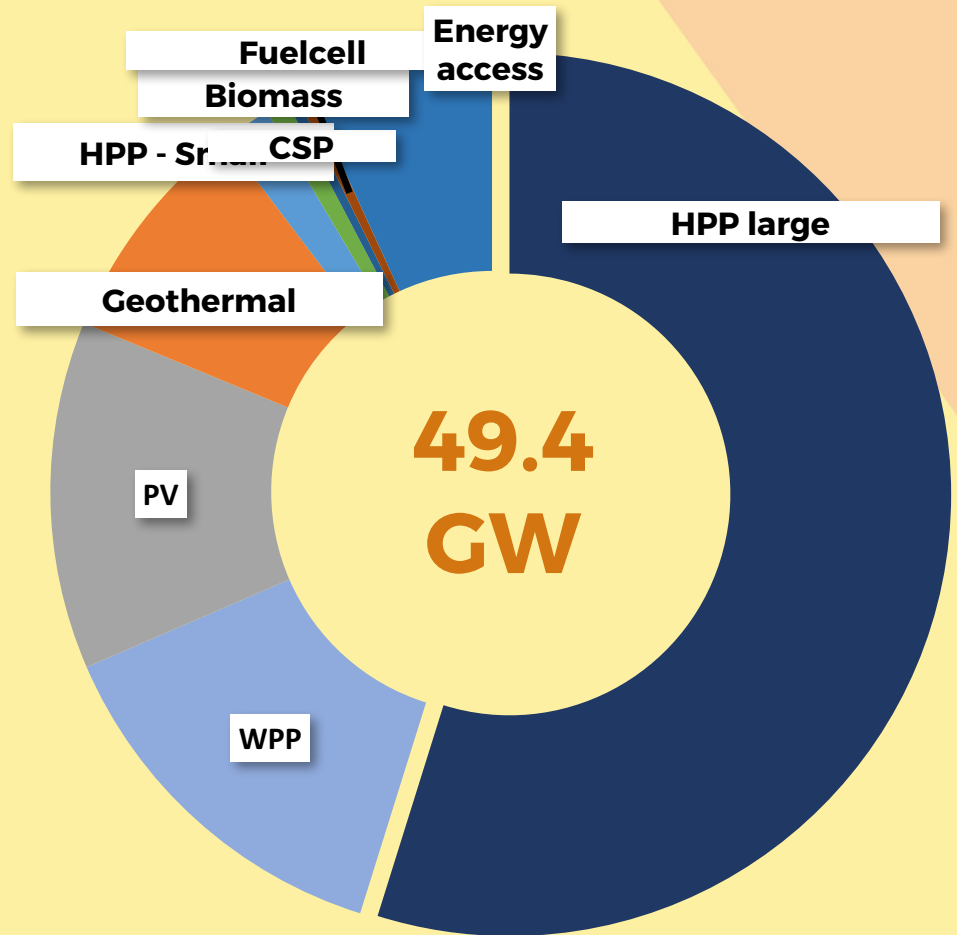
- **442** projects under-review are dominated by generation projects.
- **18%** of these are large hydro (>50 MW), and the majority of these are regional projects > 100 MW each.
- **50%** of the projects are RES generation across different technologies (AREI Category B)
- **30%** of the programs are focused on energy access, financing, capacity building and transmission (AREI Category A)
- Only **6** projects have been reported for energy efficiency.



CURRENT TECHNOLOGY LANDSCAPE

49.4 GW of capacity includes;

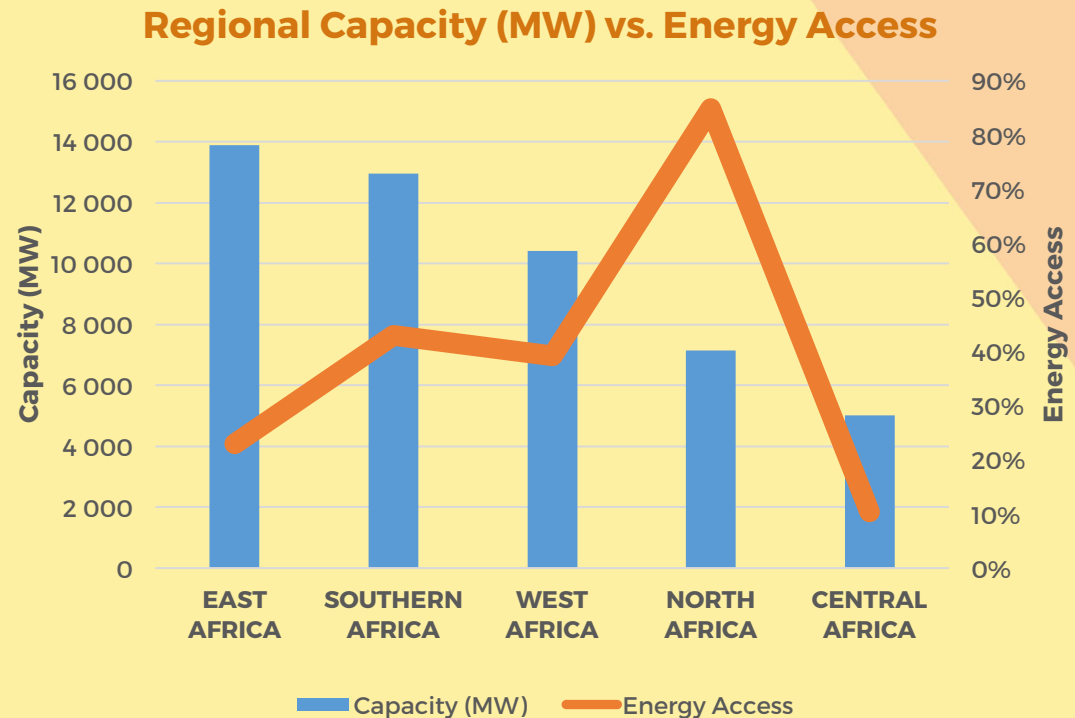
- **25.0 GW** (50% capacity is in large regional projects (> 100MW) – very little of this capacity is expected to start construction by 2020.
- **2.0 GW** of large HPP projects in country (50-100 MW)
- Energy Access projects only represent **3.4 GW (7.0%)**, where as today's energy access gap is **35-40 GW**.
- Bio-mass and small HPP projects together add-up to only **1.09 GW (5%** of all capacity)



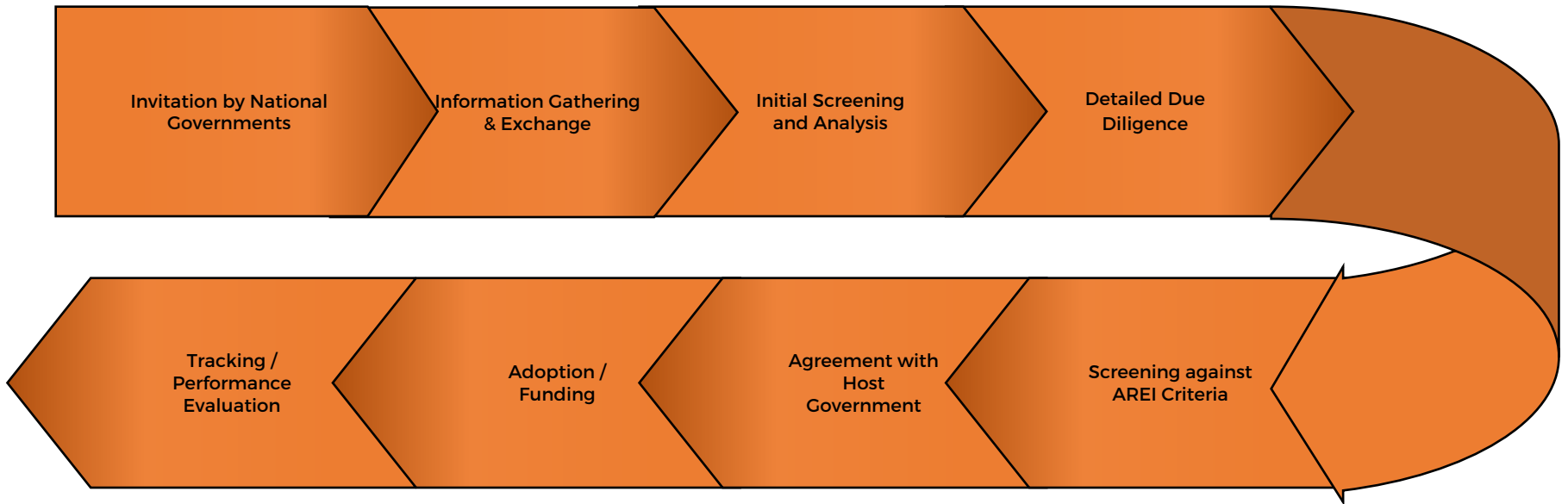
CURRENT REGIONAL LANDSCAPE

49.4 GW of capacity includes;

- **50%** capacity in large regional projects (> 100MW)
- East Africa has a pipeline of **14GW** vs. Central Africa with only **5 GW** of projects
- Central Africa accounts for only **370 MW** of projects if we exclude INGA and Ruizizi III.
- However, Central Africa has half the Energy Access to East Africa



THE PROJECT SCREENING SEQUENCE



- Each project needs to be **screened** against AREI criteria before **attribution** can be made

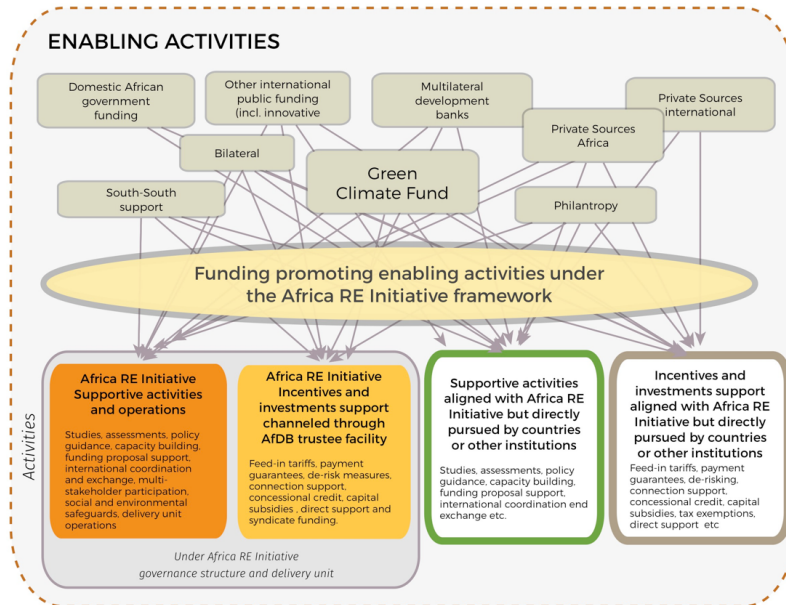
FUNDING AND INVESTMENT

Departure points for AREI
Contributions

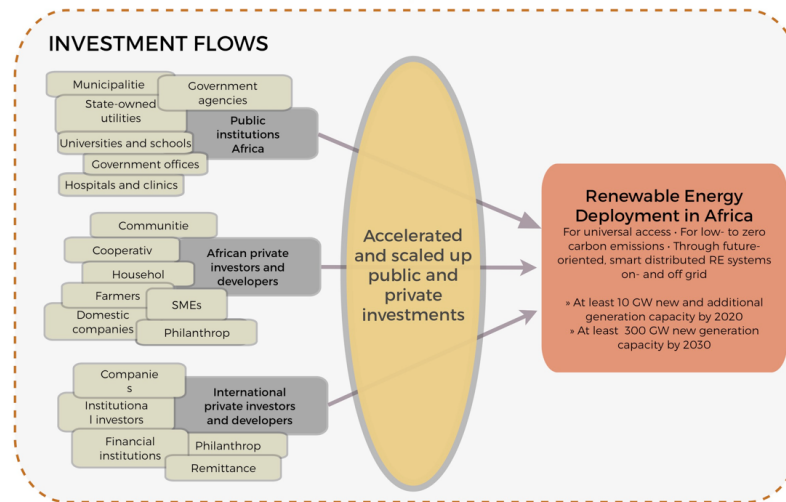
FUNDING AND INVESTMENT

- AREI is a holistic vision and framework that goes far **beyond funding**.
- Funding is **more than** the AREI Trust Fund – it's about ensuring AREI attributed activities enable necessary funds to be effectively achieved.
- **Public funding** shall enable enable activities and bold policies, programs, incentives to **create secure, conducive investment environment** for all
- This public funding **leverages** much larger **financing** of actual investments in projects on the ground.

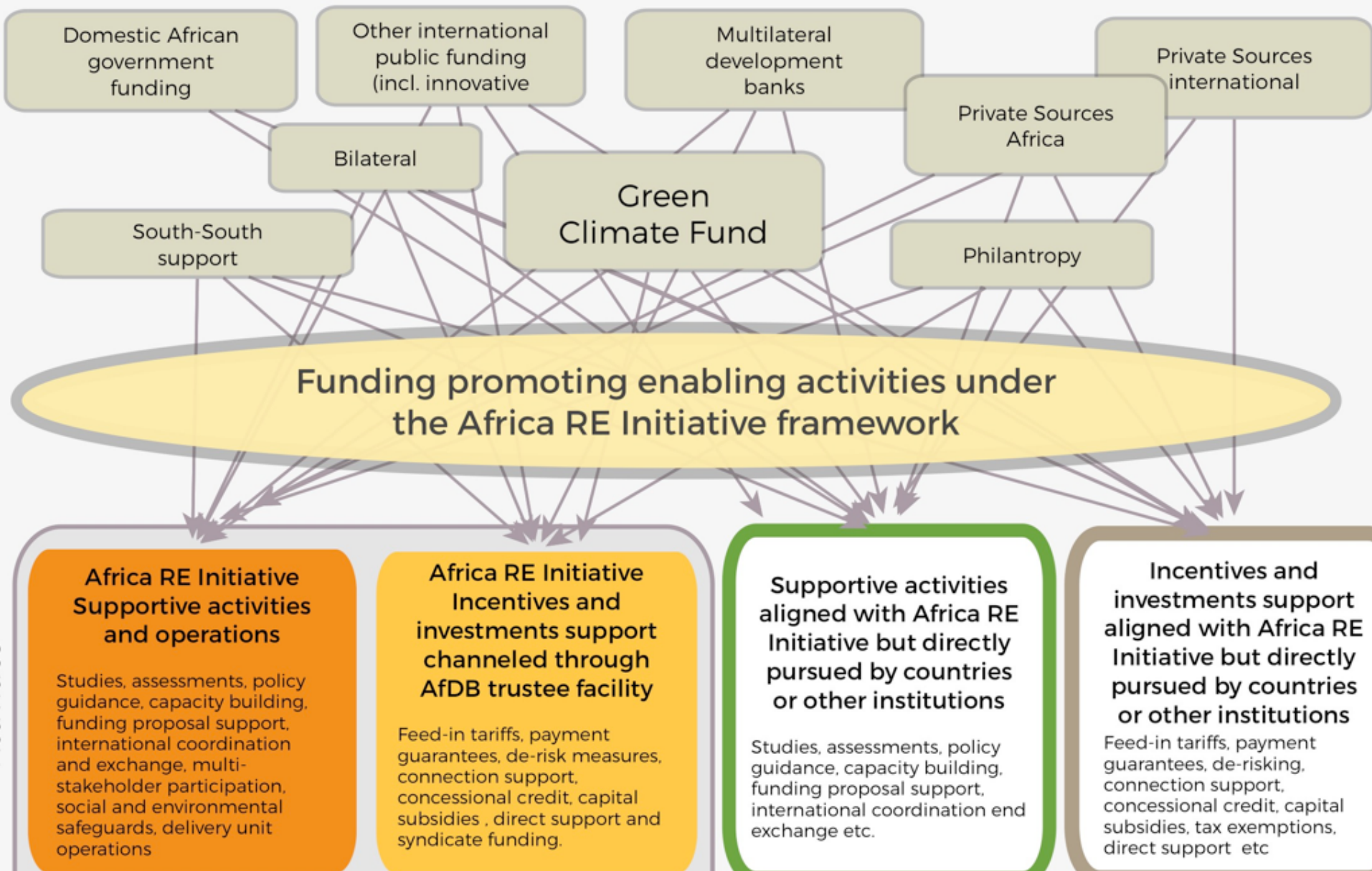
FUNDING OF ENABLING ACTIVITIES LEVERAGE MUCH LARGER INVESTMENT FLOWS



Enabling activities leverage investments from a variety of actors



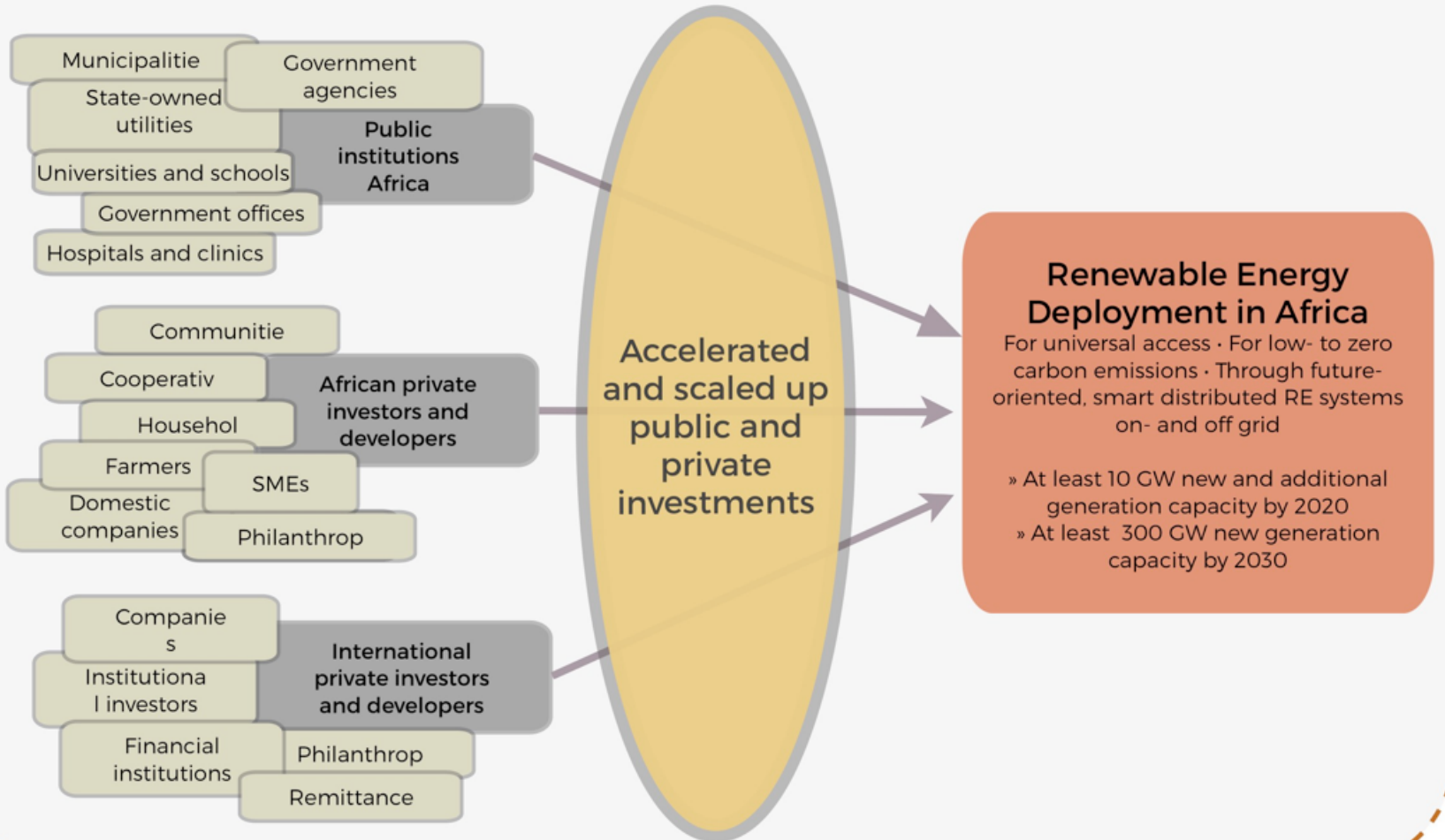
ENABLING ACTIVITIES





Enabling activities leverage investments from a variety of actors

INVESTMENT FLOWS



FUNDING STATUS FOR 2017-2020

INDEPENDENT DELIVERY UNIT	ATTRIBUTED ACTIVITIES	AREI TRUST FUND
<p>Funds for the establishment and operationalisation of the Independent Delivery Unit of AREI as a coordinating and facilitating entity to enable supportive activities in line with the AREI Action Plan.</p>	<p>Funds for 'attributed' activities, enabled by AREI and directly accessed via African countries and international public funding (through for example bi- and multilateral means and the Green Climate Fund) for both supportive and incentives/ investments activities in accordance with AREI Criteria.</p>	<p>Funds provided to the AREI Trust Fund for subsequent disbursement as project/ programme support and incentives for renewable energy investments at country levels.</p>
<p>Requirements: €66 million for 2016-2020</p>	<p>Requirements: At least USD 10 billion of new and additional public funding for leveraging public and private investments for 2016-2020</p>	
<p>Support received by January 2017: France: € 6 million Germany: € 1 million</p>	<p>Committed by January 2017: USD 10 billion total for 2015-2020 from France (€ 3 billion), Germany (€ 3 billion), EU (€ 3 billion), USA, Canada, UK, Japan, Italy, Sweden and Holland</p>	

SUCCESS FACTORS OF AREI

- **Country commitment** is fundamental
- **Bottom-up thinking** solves real challenges
- Active **engagement of multiple stakeholders** for embedding energy in society and productive sectors
- Pipeline **projects from the countries** based on their assessment of needs and conditions
- Phase 1 success will depend on how well the **establishment phase** is developed; and phase 2 is dependent on the quality of earlier phases as building blocks for **transformational pathways**.

THANK YOU!



Download brochure, summary,
framework, action plan, criteria, at

www.arei.org

AREI

