

Renewable Energy Project Development and Finance



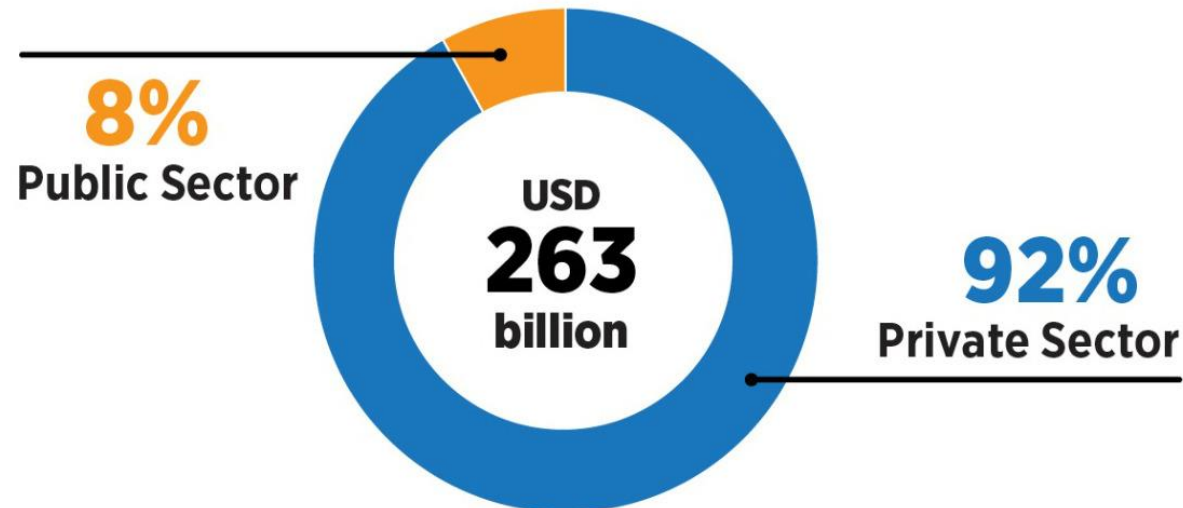
Workshop on Renewable Energy Deployment in Latin America, Quito, 1 August 2018

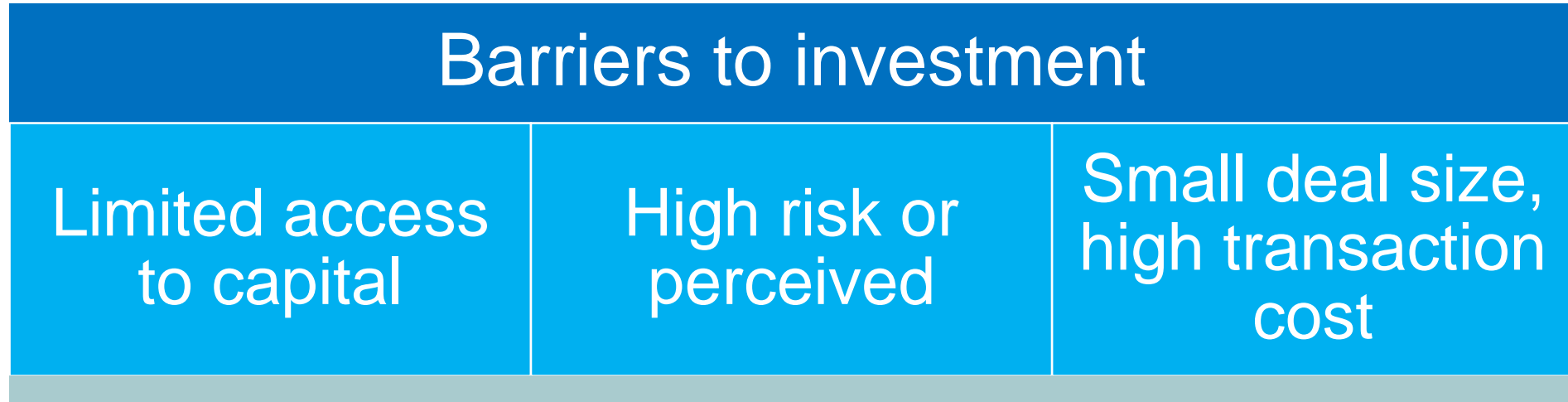
Trends in RE investment

- Global annual investment in renewables rose steadily in 2013-2015, **peaking at USD 330 billion in 2015** before falling to USD 263 billion in 2016
- Investment in **solar and wind rose to 93%** of total renewable energy finance in 2016, from 82% in 2013
- Renewables investment in **Latin America and the Caribbean reached USD 17 billion in 2015**, and USD 9 billion in 2016

Source: BNEF/UNEP (excludes large-hydro)

In 2016, private sector led the way in renewable energy investment

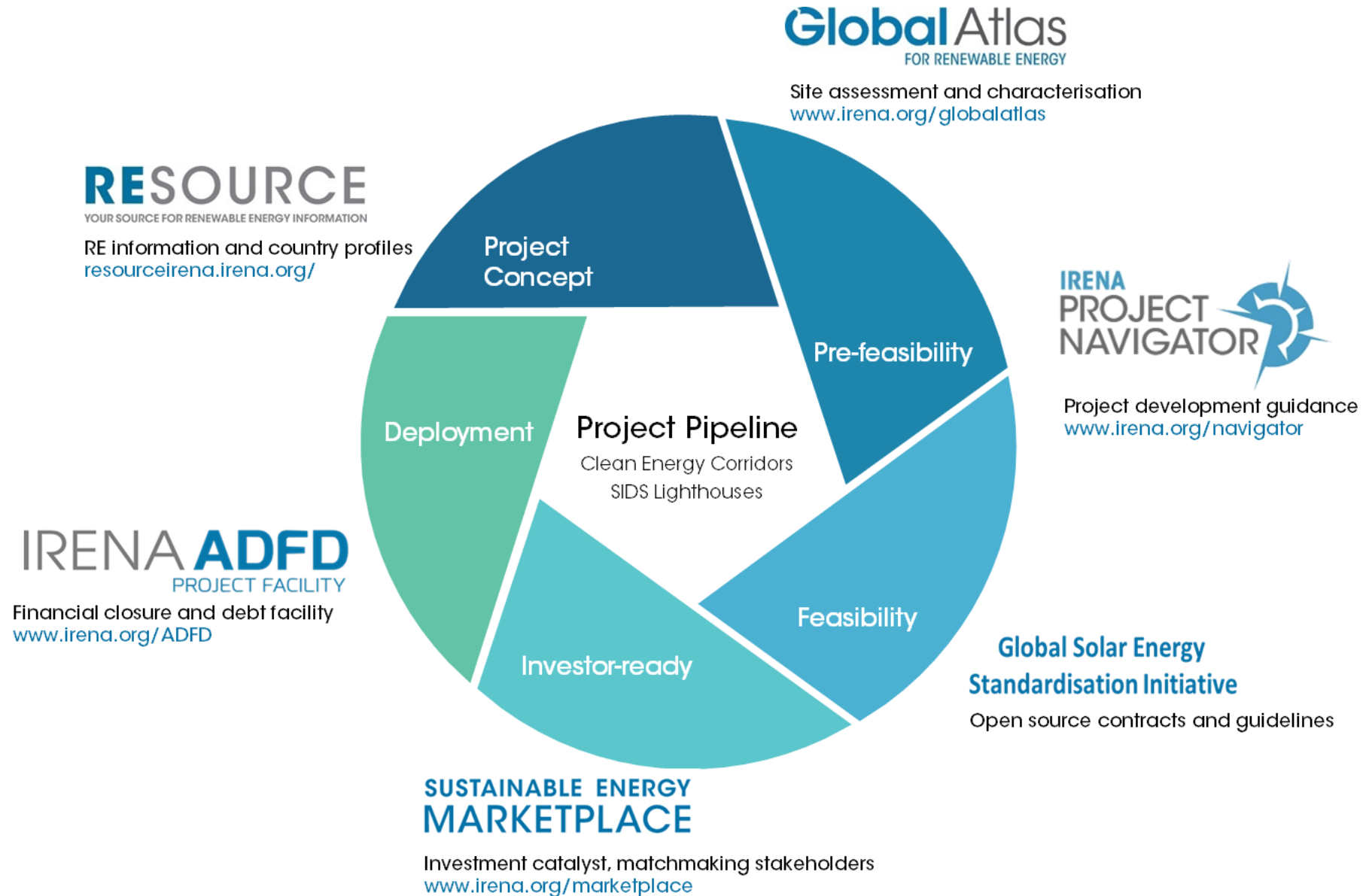




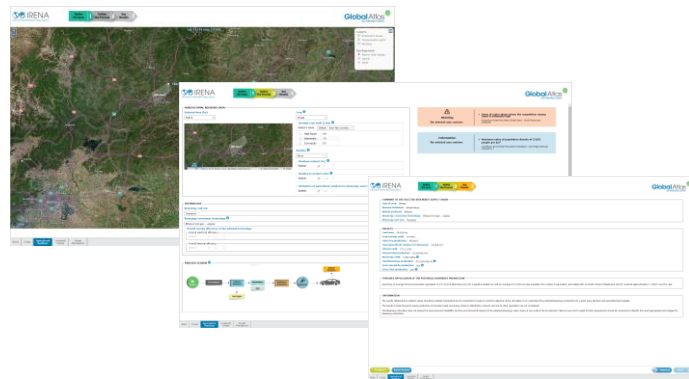
➤ **5 action areas:**

- Advance RE projects from initiation to full investment maturity
- Engage local financial institutions in RE finance
- Mitigate risks to attract more capital market investment
- Mobilize more capital market investment
- Create facilities dedicated to scaling up RE investment

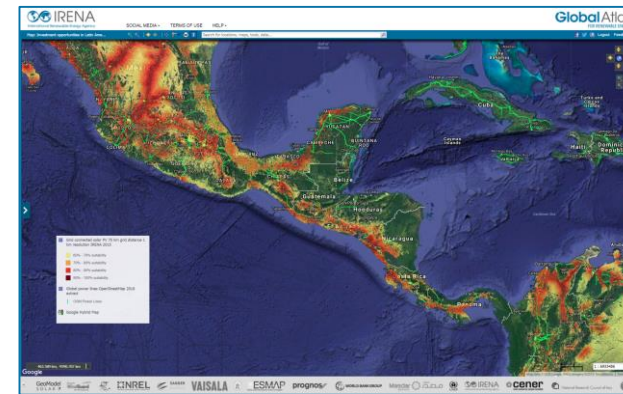
IRENA's project facilitation tools and platforms



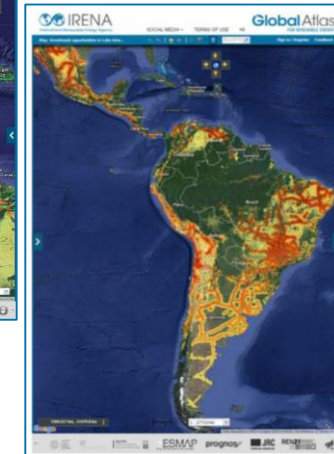
Global Atlas for Renewable Energy



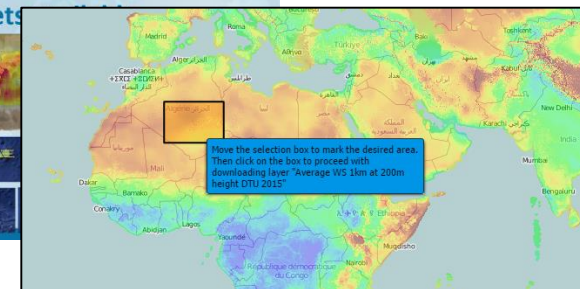
Bioenergy Simulator



Print and Extract Map Images



Over 2000 datasets



Raw Data Downloading

Link to download the World Bank Global Solar Atlas:

<https://irena.masdar.ac.ae/gallery/#map/3343>



How it works:

- Obtain reliable wind speed and solar irradiance data
- Assess annual energy production – e.g. gross, net (with exceedance probabilities) for proposed sites
- Assess financial feasibility – e.g. levelised cost of electricity, risk, returns

Objectives

- » Increase the bankability of projects by:
 - » Strengthening the project development base
 - » Reducing costs and mitigating risks through proper planning and efficient use of funds
 - » Enhancing the quality of project proposals
 - » Facilitating effective implementation



Project Navigator in numbers



5,000+ users
registered on the platform



800+ developers
trained in workshops



3,000 people
reached through webinars



users from
190+ countries



1,300 projects
created on the platform



7 Technologies
and a SIDS module



Learning Section

- » Project development and technical guidelines
- » Best practices
- » Examples & Case Studies

Interactive Workspace

- » Personal and private workspace
- » Tools, templates, checklists
- » Stepwise approach
- » Track your progress
- » Export documents

Financial Navigator

- » Information on multiple funds
- » Filter by region and technology
- » Information includes fund types, requirements and contact details among others.

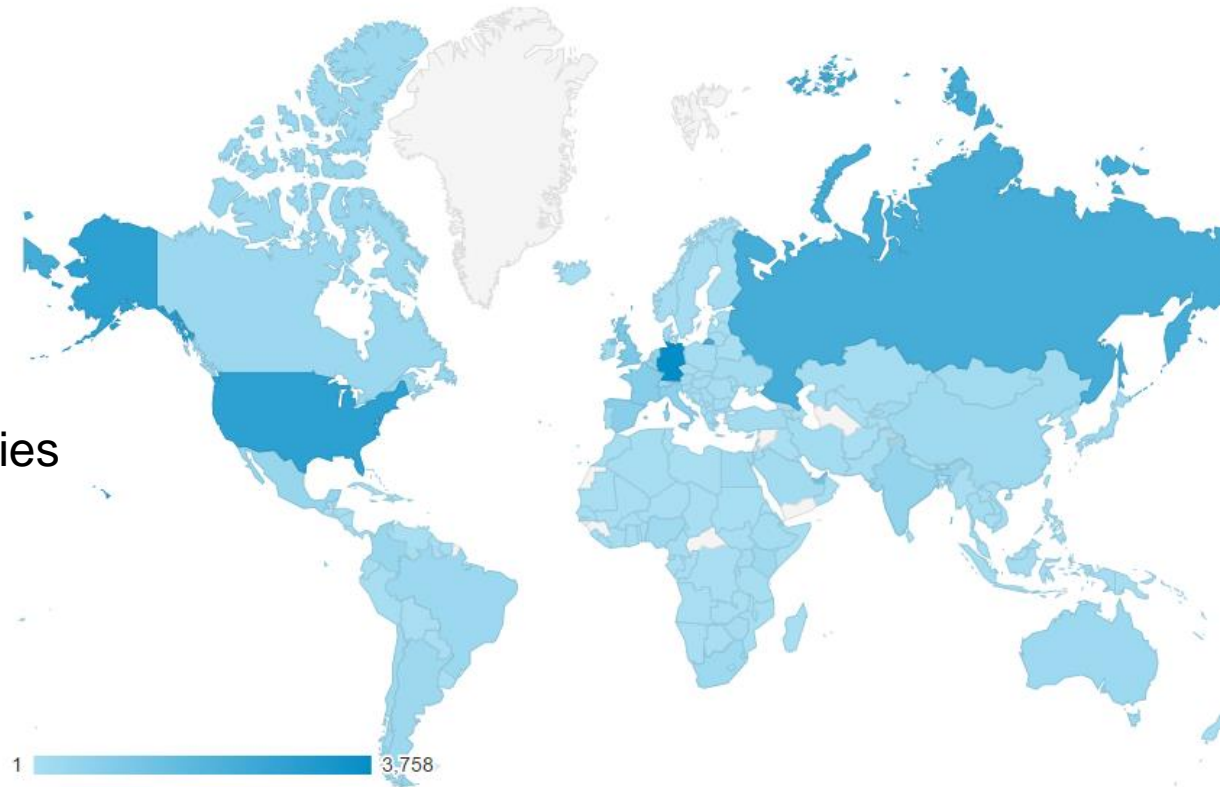
Project Navigator outreach activities

- » Trainings
 - » Southeast Asia
 - » Europe
 - » Africa
 - » Central Asia
 - » **Central America (Geothermal)**

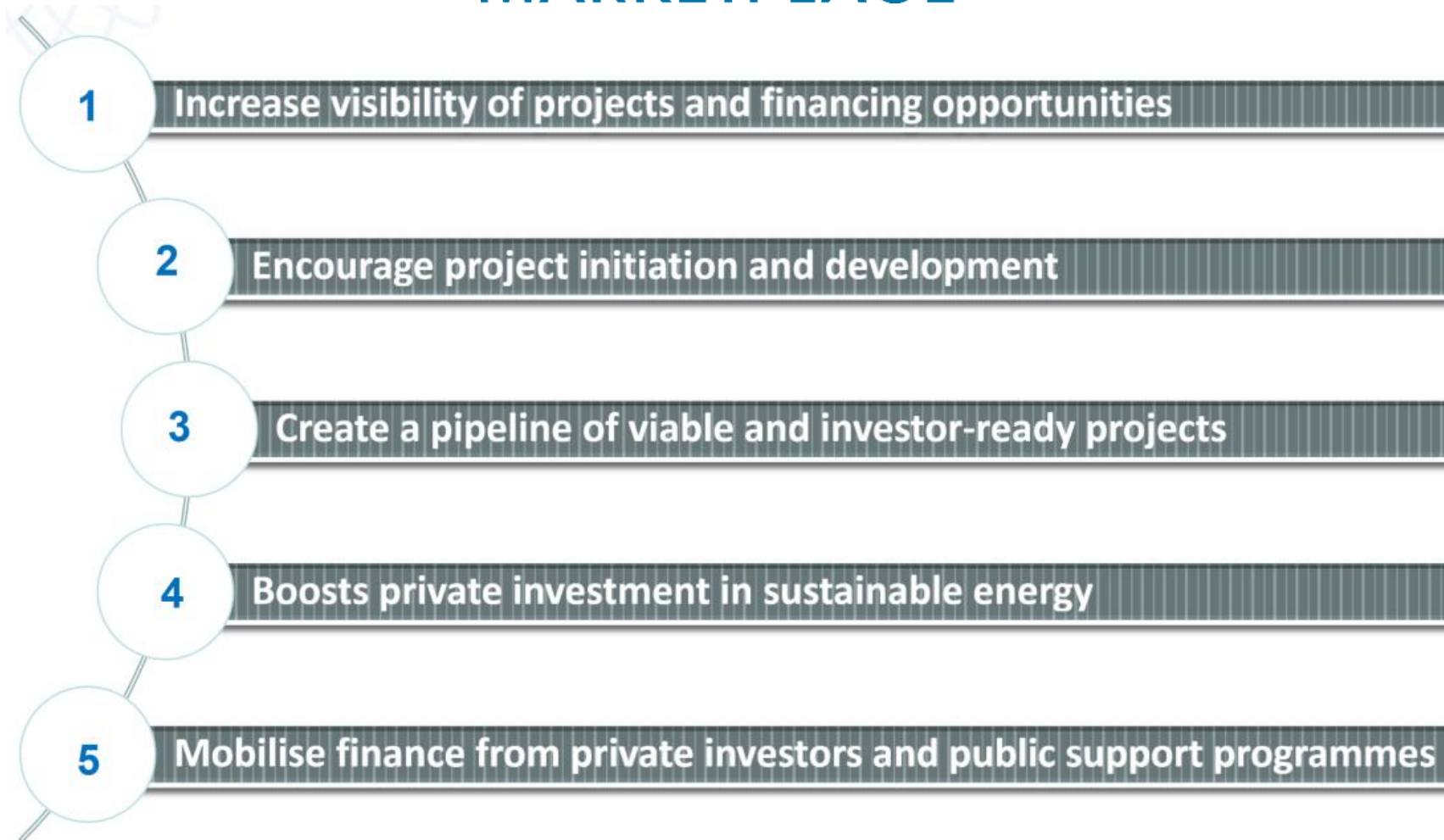
- » Webinars in cooperation with member countries

- » **Joint guidelines**
Geothermal direct use in the central America context, partnership with other organizations

- » Case studies with member countries



SUSTAINABLE ENERGY MARKETPLACE



Main stakeholders and their roles

PROJECT OWNERS

- Ensure visibility for projects
- Identify investors and advisors
- Share data

PROJECT HOST COUNTRIES

- Promote project portfolios
- Promote enabling investment environments

IRENA SUSTAINABLE ENERGY MARKETPLACE



SERVICES & TECHNOLOGIES

- Originate new customers
- Find partners in project development / financing consortia
- Find relevant country data

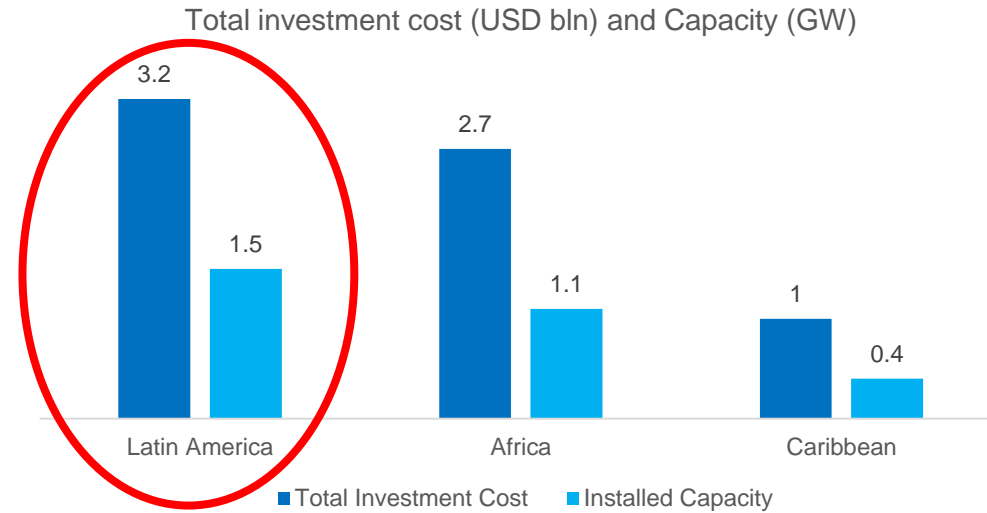
FINANCIERS

- Originate deals
- Project development support
- Co-financiers
- Find relevant country data

Coverage of the Marketplace

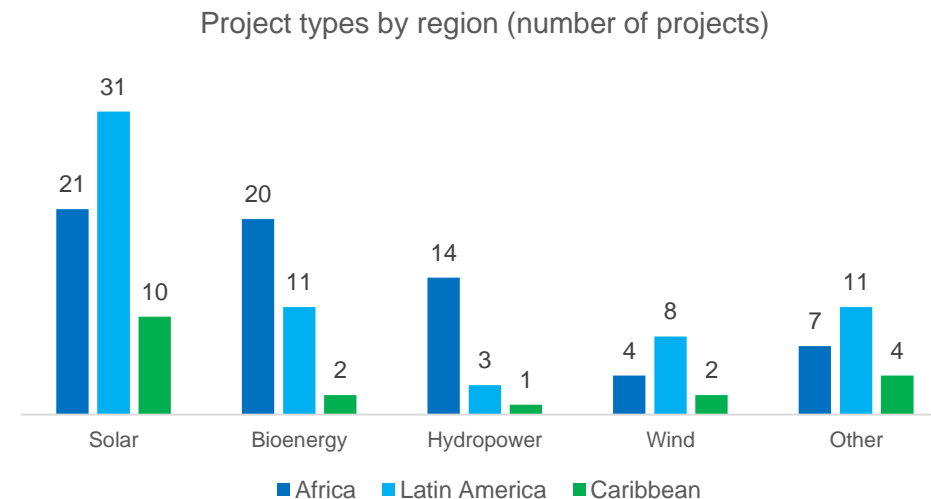
The Marketplace represents:

- 149 projects
- USD 7bn investment opportunity
- 40 financing institutions
- 95 financial instruments



Mix of different sustainable energy projects

- 62 solar projects
- 33 bioenergy projects
- 18 hydropower projects
- 14 wind projects
- 22 other renewable energy projects



IRENA and ADFD have partnered to **select and fund renewable energy projects in developing countries**

USD 350 million in seven annual cycles.

~USD 50 million in each cycle.

USD 5-15 million ADFD sovereign loans for each project.

Up to 50% of project costs covered. Remainder must be co-financed.

Government guarantee needed.

1% or 2% loan rates.

20 year loan period including **5-year grace period.**



USD 13 million for 2 MW solar PV project in Senegal benefiting rural communities



USD 15 million for 4 MW wind and solar project in Antigua and Barbuda increasing climate resilience

Five completed cycles:

- USD 630 million in total project costs
 - USD 214 million from ADFD
 - USD 420 from co-financing
- USD 136 million to be allocated in remaining cycles

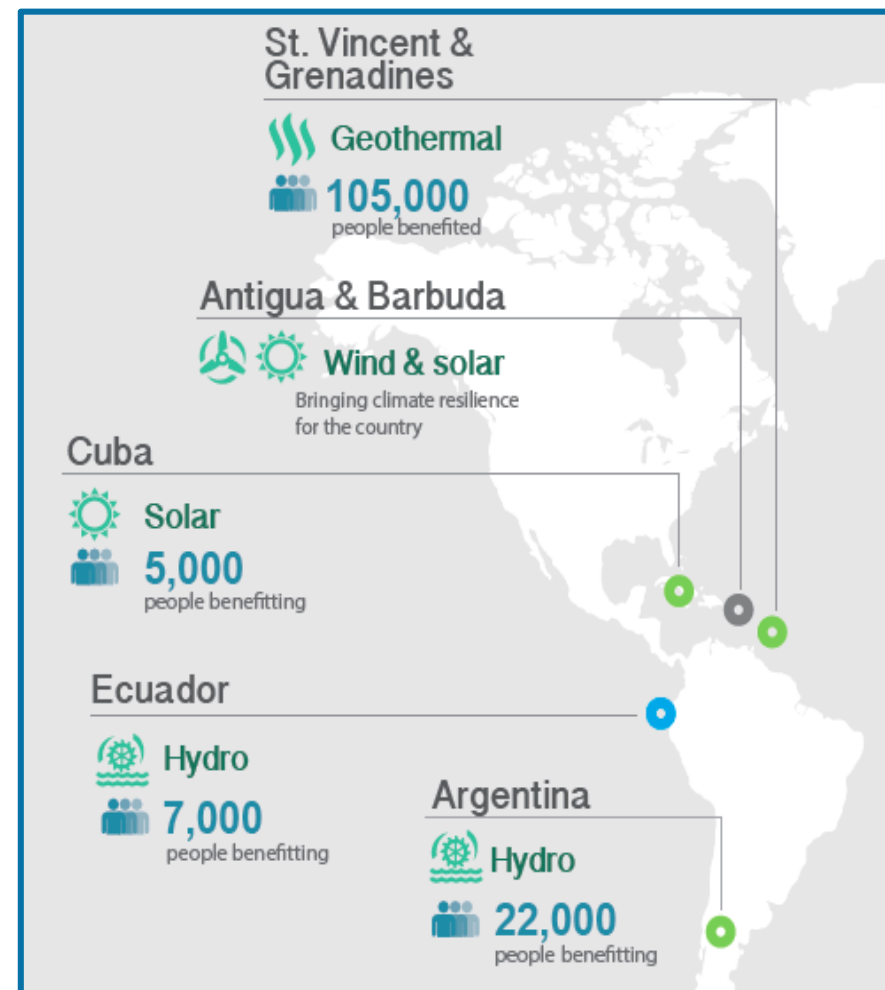
6th cycle underway:

- Projects selected for funding to be announced in January 2019

7th cycle:

- Forms open online for submission Nov. 2018 – Feb. 2019
- Stakeholders can engage as applicants, experts or co-funders

SELECTED PROJECTS



Cycle 1-4

GRACIAS

