

# IRENA's Project Facilitation Tools

Tijana Radojičić

Associate Programme Officer for Sub-Saharan Africa

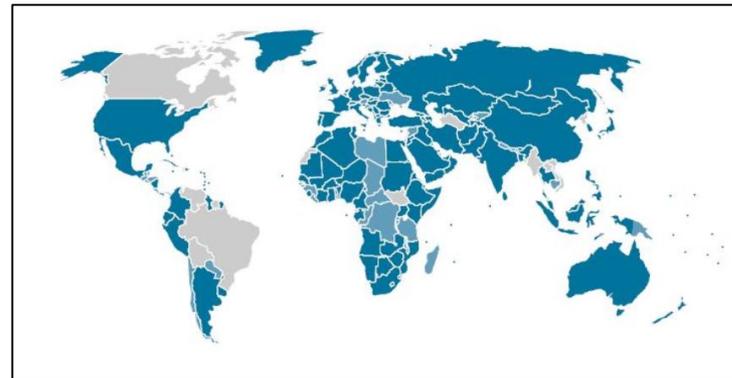
1 February 2018

Nairobi, Kenya

# About IRENA

- Headquarters in Abu Dhabi, UAE
  - Country Support and Partnerships
  - Knowledge Policy and Finance Centre
  - Innovation & Technology Centre (in Bonn, Germany)
- Established in April 2011
- 154 members, 26 states in accession

Mission: Accelerating  
deployment of all forms of  
renewable energy



Success stories  
Country profiles

**RESOURCE**  
YOUR SOURCE FOR RENEWABLE ENERGY INFORMATION

Site  
characterization

**GlobalAtlas**  
FOR RENEWABLE ENERGY

Project  
concept

Pre-  
feasibility

Deployment

**Project pipelines**  
Corridors, RE  
Roadmaps, Readiness  
Assessments

Bankable project  
development  
guidelines

Investor  
ready

Feasibility

**IRENA**  
PROJECT  
NAVIGATOR

**SUSTAINABLE**  
ENERGY MARKETPLACE

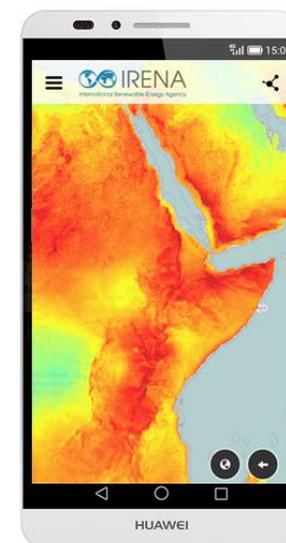
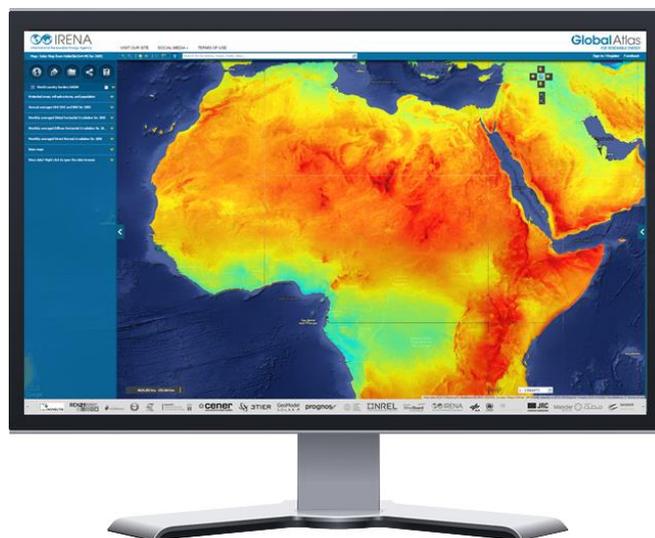
**IRENA ADFD**  
Supporting Energy Transition

Assistance to  
financial  
closure and  
debt facility

**SUSTAINABLE**  
ENERGY MARKETPLACE

Evaluate, technical  
assistance

# The Global Atlas for Renewable Energy: IRENA's renewable energy prospector



[www.irena.org/globalatlas](http://www.irena.org/globalatlas)



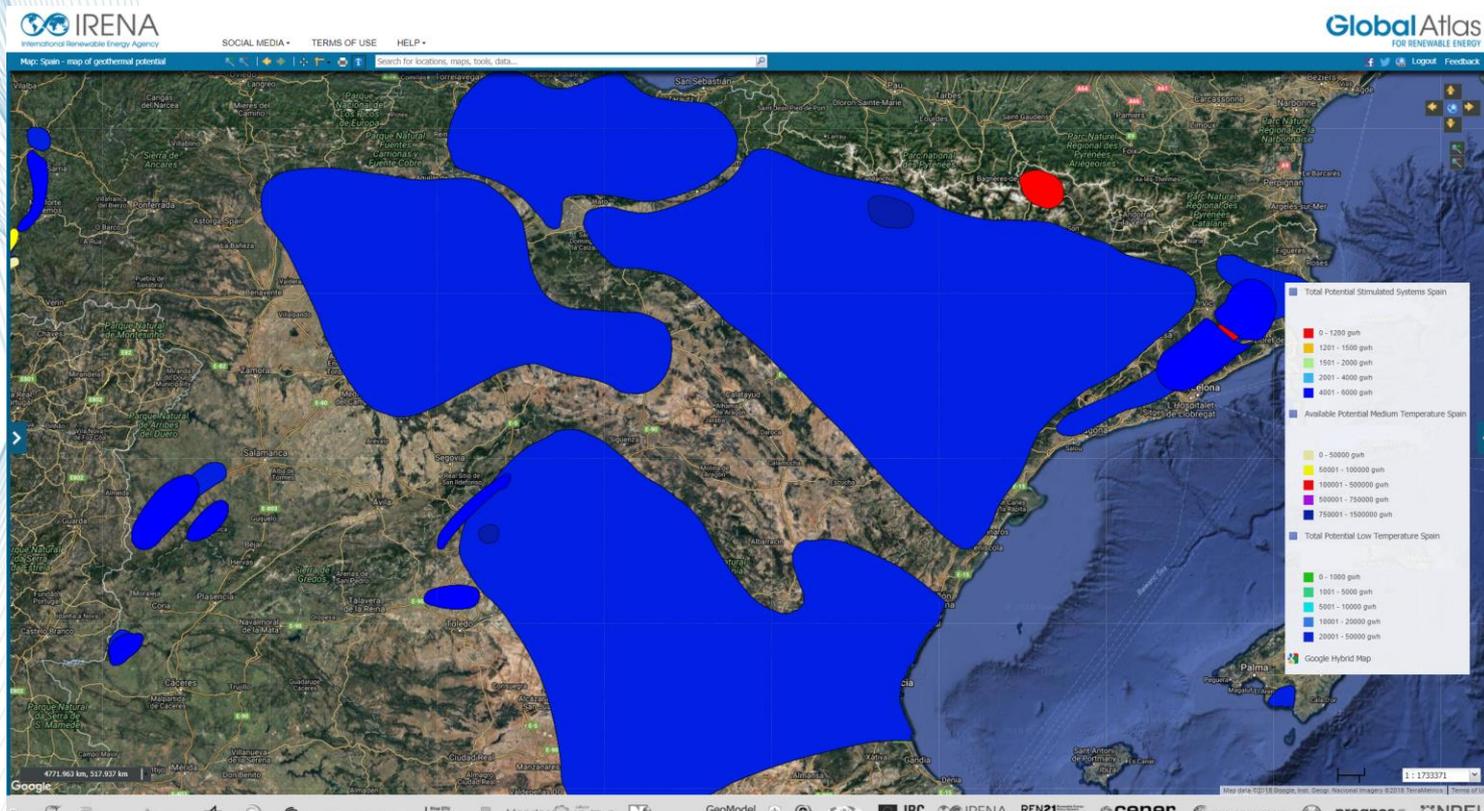
Global Atlas *pocket*  
Mobile App



# Geothermal component

For **geothermal** energy, the **Global Atlas** contains several maps (of geothermal potential and in some cases fields) covering **12 countries** and **continental Europe** (for heating and other direct uses). A few include:

- Geothermal potential in regions of Spain
- Geothermal field locations and potential in Turkey
- Australia potential areas for enhanced geothermal systems



- In 2018, **IRENA** and the **IGA** plan to pilot an initiative to support **Geosurveys** and relevant **authorities** in **four** countries in inventorying existing geothermal fields and in classifying resource estimates based on the UNECE Guidelines for geothermal classification and reporting
- The initiative would support in adding **new data** from these countries in the **Global Atlas** for use in prospecting

# IRENA PROJECT NAVIGATOR



Access practical information, tools and guidance for the development of bankable renewable energy projects



- 🔄 A **learning section** with easy-to-access knowledge materials
- 🔄 An **interactive workspace** to develop projects and track progress
- 🔄 An **online search engine** to find renewable energy funding sources

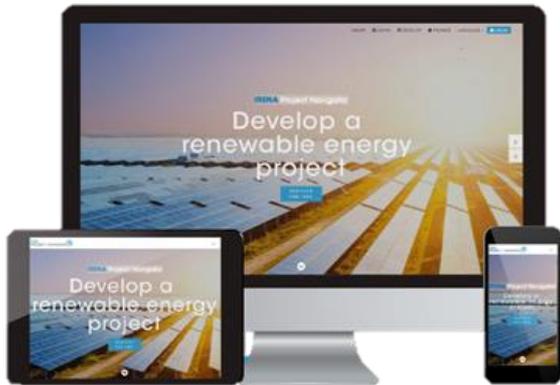


Obtain project development guidance with 50+ tools for:

- Utility-scale Solar PV
- Onshore Wind
- Woody Biomass
- Min/ Microgrids
- Geothermal Power
- Solar Home Systems
- Small Hydropower

[www.irena.org/navigator](http://www.irena.org/navigator)

# IRENA Project Navigator platform



## Learning Section

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

## Start a Project

- » 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.

# Technical Concept Guidelines

Home > Learning section > Technical Concept Guidelines > Geothermal



- Home
- Introduction
- Overview
- Identification
- Screening
- Assessment
- Selection
- Pre-development
- Development
- Construction
- Operation & maintenance
- Decommissioning

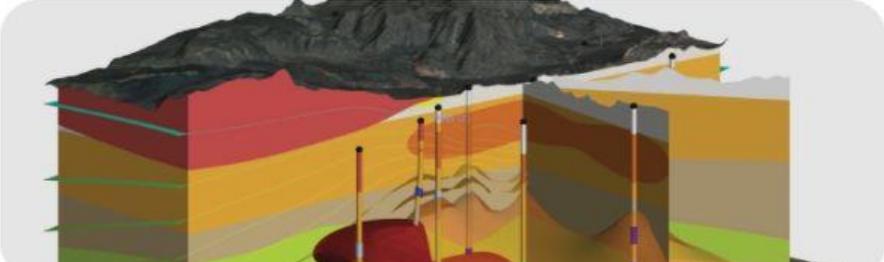
## Assessment

**On this page**

- Technical assessment
- Environmental and social assessment
- Risk management

**Outline**

In the assessment phase, the project developer should perform a resource assessment consisting of surface exploration, temperature gradient hole drilling and conceptual reservoir model development. At the end of the phase, the project developer should be able to specify technical requirements for the drilling of full-size wells.



## Resources

**Toolkit**

- Project Brief Template
- Bankability Checklist
- Risk Assessment Tool
- Environmental Impact Assessment Tool

**Case study**

- Geothermal Case Study - Caribbean

**Links**

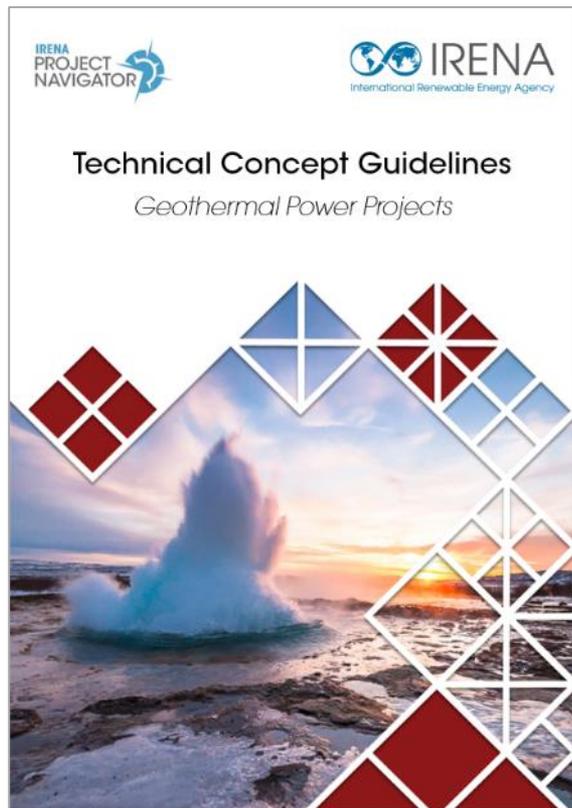
- IRENA Global Atlas
- IRENA - Renewable

Quick Access to Tools

Menu and navigation

## Project Navigator Geothermal module

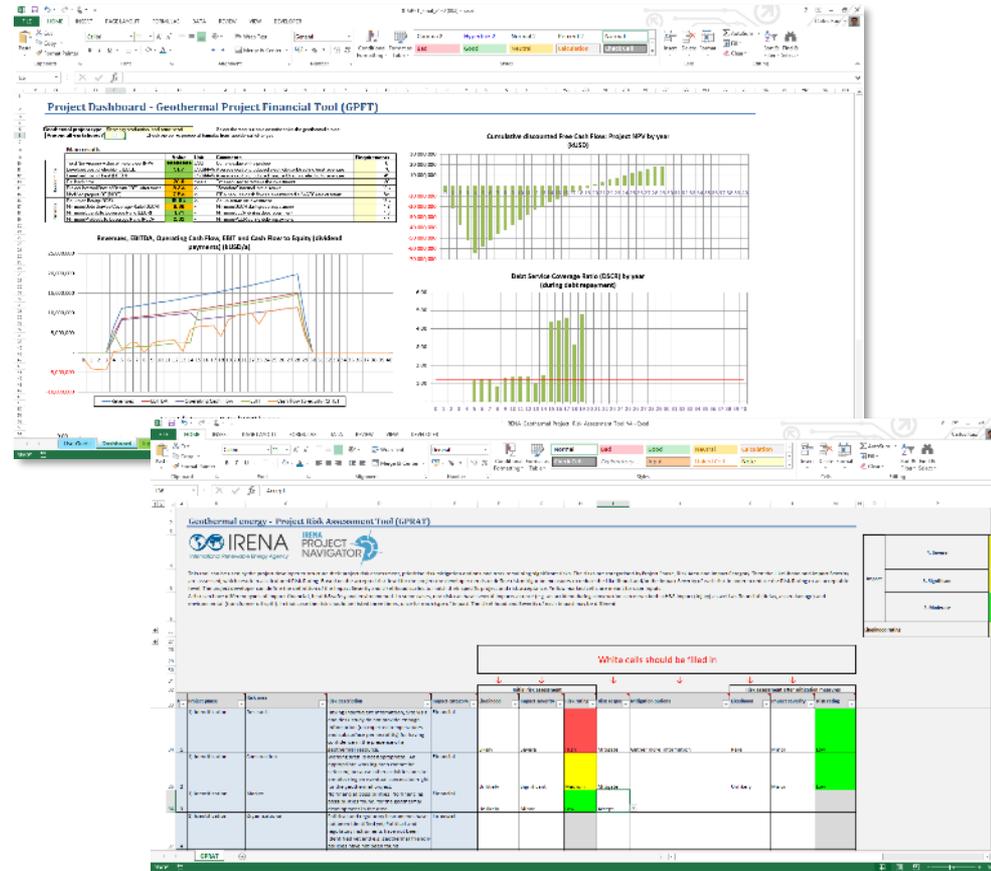
Online project facilitation tool available to understand how to enhance the bankability of geothermal power projects



- ◉ **State-of-the-art project guidance developed by IRENA with industry experts**
- ◉ **Scope**
  - Project planning
  - Technical feasibility
  - Economic & Financial indicators
  - Bankability requirements
- ◉ **Main features**
  - 9 project phases with systematic guidance on activities and deliverables
  - Project documents, templates, case studies and analytical tools
  - Project evaluation model (excel)

# Tools & Templates

- Case study
- Project evaluation model
- Risk assessment tool
- Environmental assessment tool
- Contractual fact sheets
- Site evaluation tool
- Bankability checklist
- Project brief template



# Technical Concept Guidelines



To scale up renewable energy and energy efficiency investments a virtual market place is created with the objective to support:

- ✓ initiation,
- ✓ development and
- ✓ financing

of sustainable energy projects

*By:*

- *Improving the transparency of the market*
- *Offering relevant tools and databases for market players*
- *Supporting and facilitating projects in the development stage*

<http://irena.org/marketplace>

# Funding offered for renewable energy projects in developing countries

# 1. What is the Facility?

- Collaboration between IRENA and the Abu Dhabi Fund for Development.



- USD **350 million** in concessional loans from ADFD over **seven annual funding cycles** to promising renewable energy projects in developing countries recommended by IRENA.

## 2. Access funding

- The call for proposals for the sixth cycle opened on **16 November 2017** with a deadline of **15th February 2018**.

## Eligibility

- Members of IRENA, Signatories or States in Accession and developing countries on the OECD “DAC List of ODA Recipients”. Preference is given to IRENA members in the process. **Eligible country list accessed on website.**
- Renewable energy as defined in the Statute of IRENA and **tried and tested** technologies: all forms of energy produced from renewable sources in a sustainable manner which include inter alia bioenergy, geothermal energy, hydropower, ocean energy, solar energy, and/or wind energy.
  - Projects must be able to provide the following in the selection process:

**Government  
Guarantee for the  
ADFD loan**

**Technical,  
economic and  
financial  
feasibility study**

**Positive  
development  
impacts**

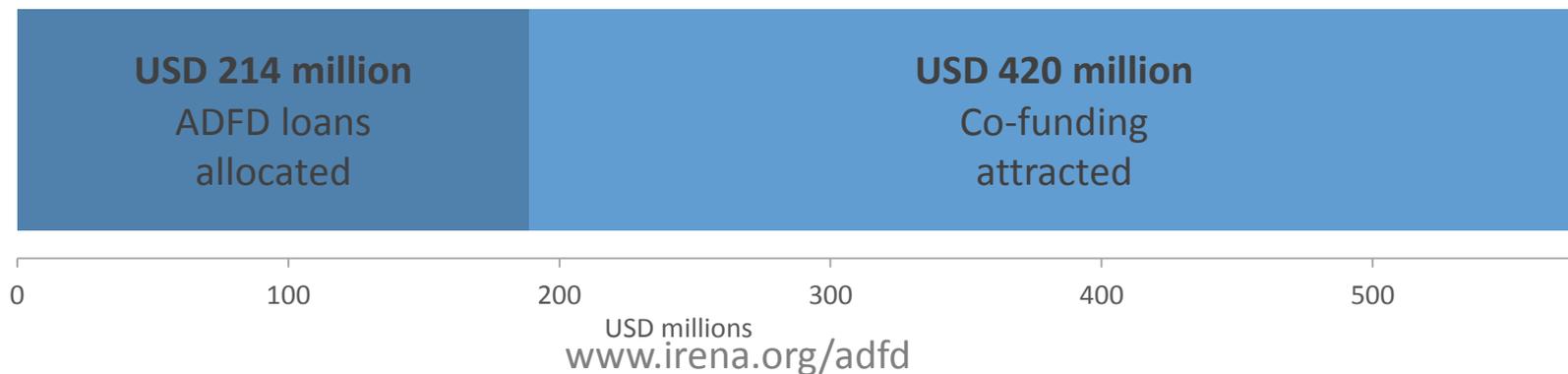
### 3. Funding offer

- **USD 50 million** available in each cycle.
- **USD 5-15 million** ADFD loans for each project, covering **up to 50%** of the project costs. Remainder must be co-financed.
- **1-2% loan rates. 20 years loan period** including 5 years grace period. Loan rates that apply to your country are on eligible country list online.



3.6 MW solar mini-grid project in Burkina Faso receiving USD 10 million selected in the third cycle.

So far, over five annual funding cycles USD 630 million mobilized including:



## 4. Selection process



### **Panel of Experts**

Technically evaluate and score projects – Expert considerations and scoring system all available online.



### **Advisory Committee**

Strategic considerations of geographic spread, technology diversity and national priorities of country where project is taking place.



### **ADFD**

Final selection from recommended list from Committee. ADFD requires a government guarantee letter (templates available online), full feasibility study (requirements for this are available online) and positive development impacts.

# 4. Selection process

## First phase

## Second phase

executive project  
summary stage

full project  
proposal stage

final selection  
stage

project  
applicants

panel of  
experts

advisory  
committee

project  
applicants

panel of  
experts

advisory  
committee

ADFD

submit

shortlist

select

submit

shortlist

recommend

final  
decision

~85  
applications

~35

~25

~20

~12

~6

**16 Nov 2017 – 15  
Feb 2018**

Applicants submit executive project summaries online

**May 2018 – Jun 2018**

Shortlisted projects called to submit a full proposal online including a **full feasibility study** and **government guarantee letter**  
**Projects shared with a list of 197 funding contacts.**

**End Dec  
2018**

# 5. How to apply - online



## Accessible finance for renewable energy projects in developing countries

The International Renewable Energy Agency (IRENA) and the Abu Dhabi Fund for Development (ADFD) have collaborated on a joint Project Facility to support replicable, scalable and potentially transformative renewable energy projects in developing countries. ADFD committed USD 350 million in concessional loans, over seven annual funding cycles, to renewable energy projects recommended by IRENA.



**funding cycle opens between 16 November 2017 and 15 February 2018.**

[Apply here](#)



*“The IRENA/ADFD Project Facility has identified path breaking renewable energy projects providing sustainable and affordable energy for those who need it most.”*

## Quick Links

[Overview](#)

[Project Facility](#) ▾

[Apply](#) ▾

[Selected Projects](#)

[Announcements](#)

[FAQs](#)

[Register](#)

[Login](#)

## Contact

 [adfd@irena.org](mailto:adfd@irena.org)

Home > Overview

## IRENA ADFD Overview

IRENA/ADFD Project Facility sixth cycle overview, statistics, guidance documents and timeline

OVERVIEW

MY PROJECTS

TOOLS

SELECTED PROJECTS

MAPS

VISUAL CHARTS

The sixth funding cycle opens to receive Executive Project Summary applications between 16th November 2017 and 15th February 2018.

### Eligible Countries Map - IRENA ADFD

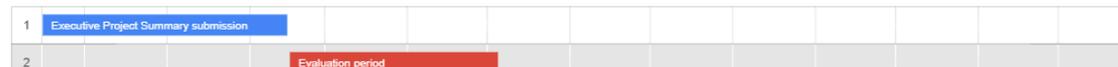


Eligible Countries Map - IRENA ADFD

### Overall Guidance Documents

Expert Considerations for Applicants Download	November 13, 2017	Guidelines for Applicants Download	November 9, 2016
ADFD Feasibility Study Requirements at the Full Project Proposal Stage Download	November 9, 2016	Government Guarantee Letter Template for Government Entities Download	May 8, 2016
Government Guarantee Letter Template for Non-Government Entities Download	May 8, 2016		

### Timeline for Applicant



# Online application form

## Lead organisation details

Type of organisation\*

-Please Select-

Short description of organisation\*

Last turnover (millions USD)\*

Number of employees\*

Year of establishment\*

Other applicant organisation / partners\*

## Government entity details

Contact information of the government entities involved:

Contact information of the government entity supporting the project/project beneficiary - may be the same as the lead organisation:

Contact information of the Ministry that deals with the borrowing affairs of the country:

Name of government entity\*

e.g. Ministry of Energy

e.g. Ministry of Finance

Division / Department\*

First name\*

Last name\*

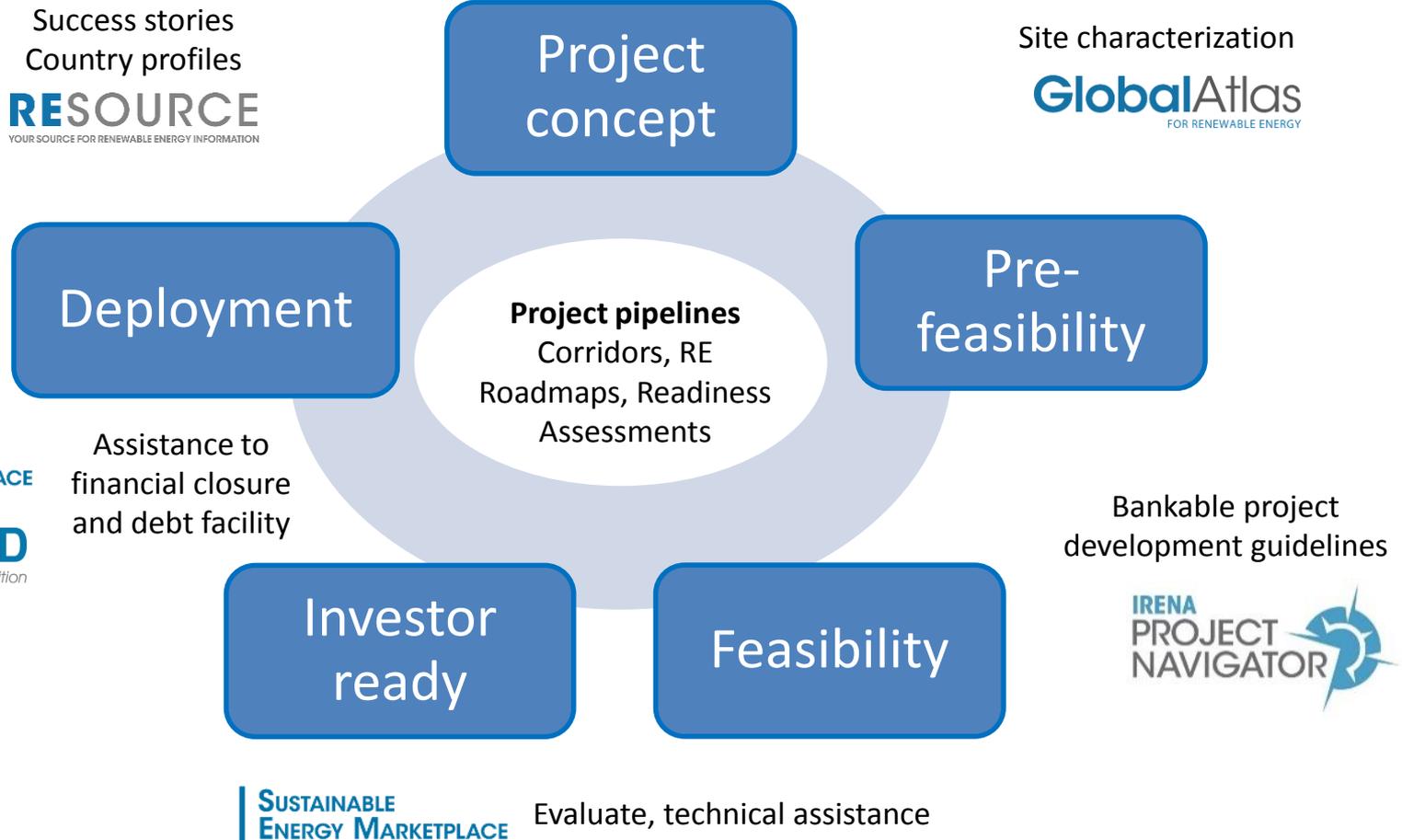
Title\*

Job title\*

Phone (direct)\*



# 6. IRENA Tools



Thank you for your attention.