



South East Europe Regional Initiative

Belgrade - 12 June 2018

SEE regional workshop on renewable project development and financing

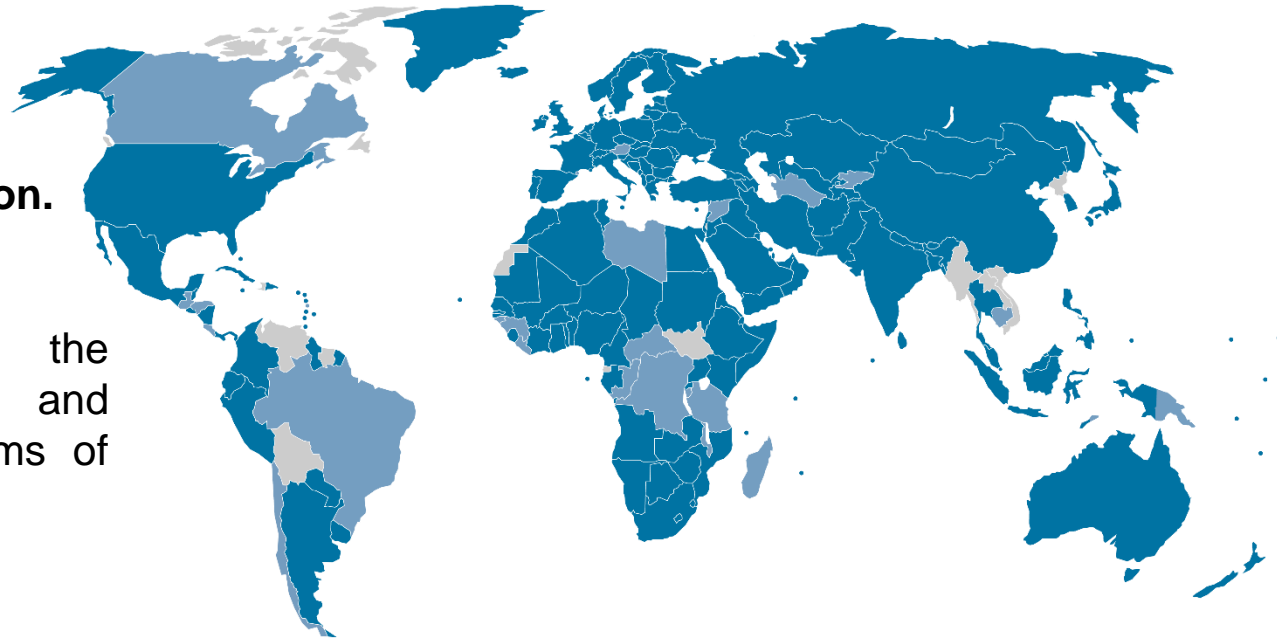
Established in 2011.

**157 Members and
25 more States in accession.**

Mandate: to promote the widespread adoption and sustainable use of all forms of renewable energy

IRENA serves as:

- The principal platform for international co-operation,
- A centre of excellence, and
- A repository of knowledge on policy, technology, resource and finance for renewable energy.



BIOENERGY



GEOTHERMAL
ENERGY



HYDROPOWER



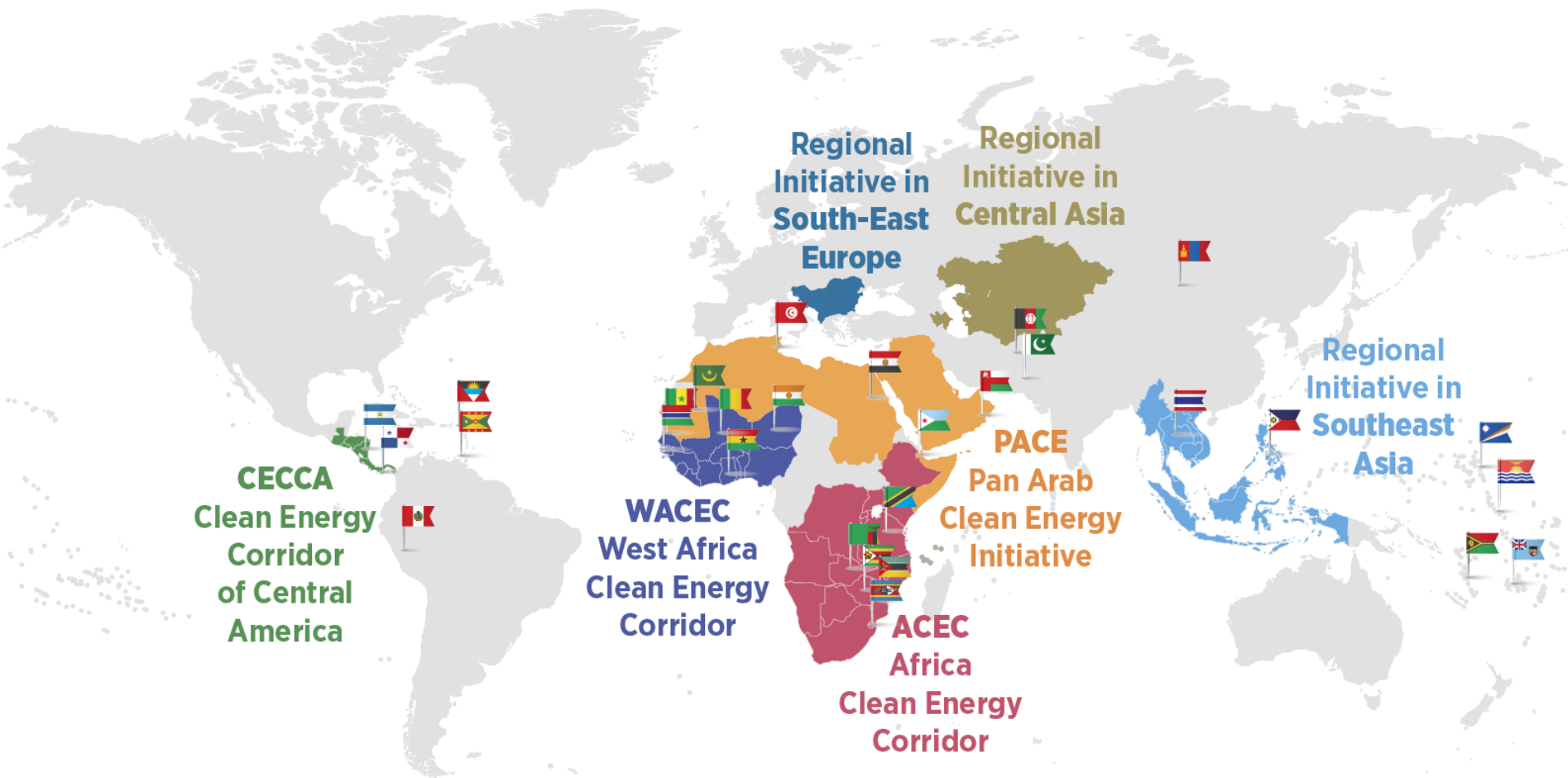
OCEAN
ENERGY

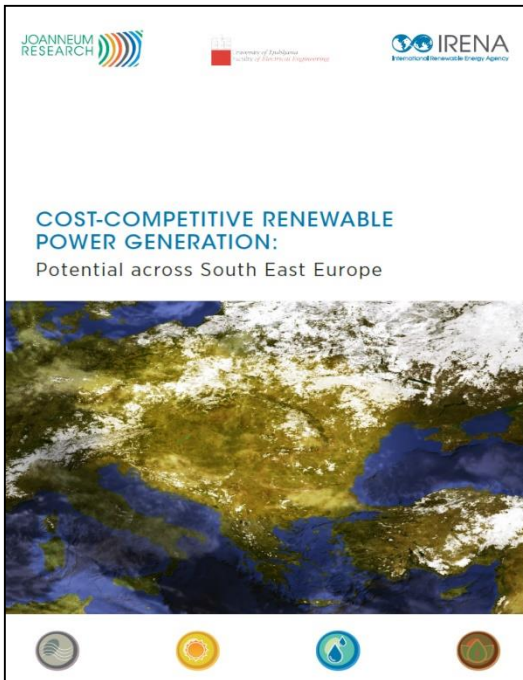


SOLAR
ENERGY



WIND
ENERGY





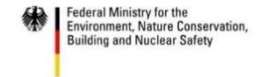
Assessment of the overall renewable electricity potential

Identification of cost-competitive RE potential – focus on wind & solar PV

Inform policy makers for the upcoming process of undertaking new commitments and developing long-term strategies for RE

 giz Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

On behalf of:



of the Federal Republic of Germany

Cost-Competitive Potential

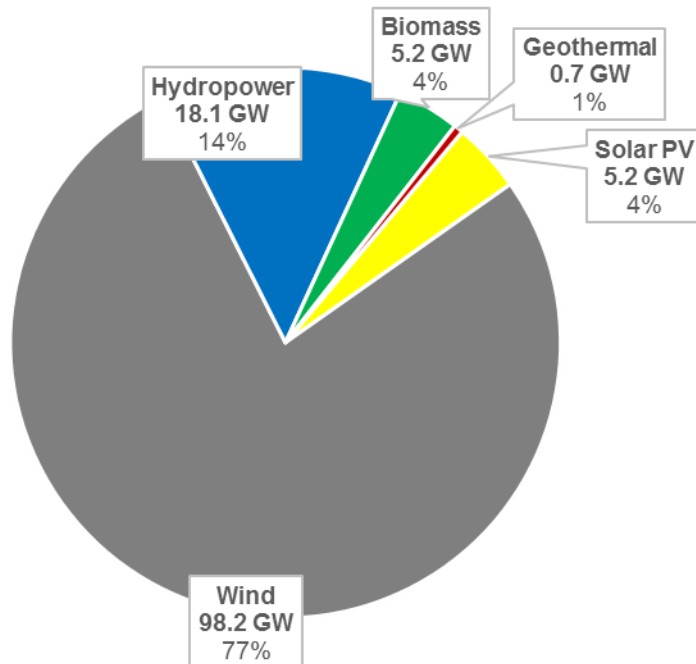
- ✓ LCOE within the ranges of the fossil-fuel supply options
- ✓ Level of cost-competitive potential today, 2030 and 2050
- ✓ Sensitivity analysis for cost of capital

NREAPs Targets vs. Cost-competitive additional potential

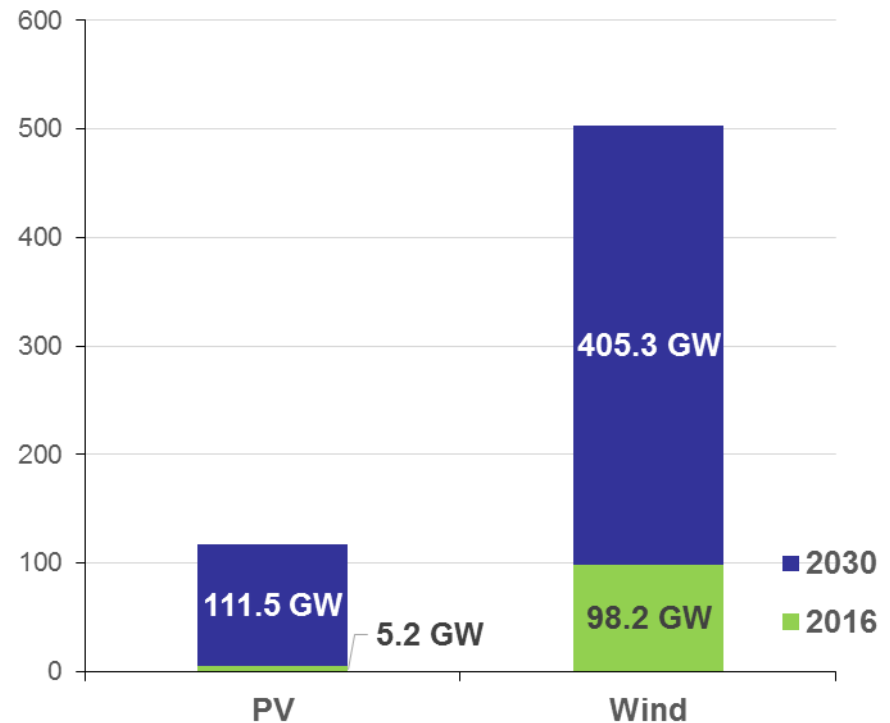
8.2 GW

Gap to achieve cumulative RE deployment target for 2020 (based on NREAPs)

127 GW
Renewable Energy today



620 GW
Wind and Solar PV by 2030



Abu Dhabi Communiqué on Accelerating the Uptake of Renewables in South East Europe (January 2017)

Action Areas

- Resource assessment
- Long-term planning for RE deployment
- Enabling frameworks: technical, policy, regulatory, institutional
- Market based RE support schemes
- Socio-economic benefits vs. affordability
- Access to financing for RE projects



Regional Workshop on RE Auctions

March 2017

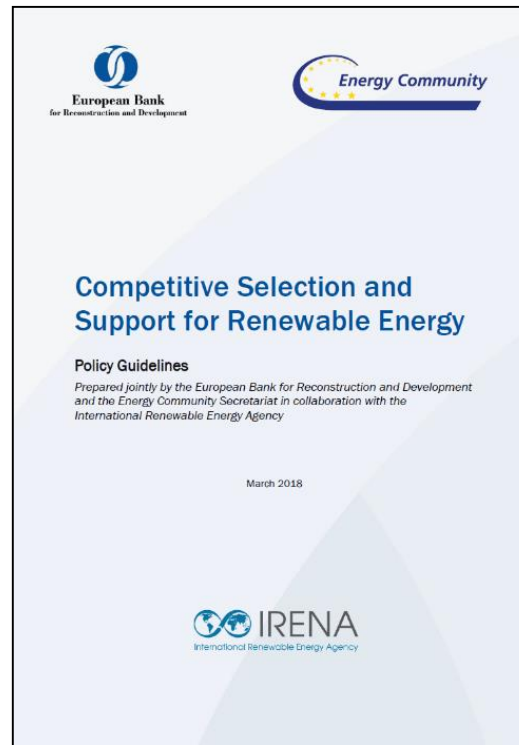
- RE support instruments
- Best practices on auction-based support schemes
- Implications of different auction approaches



RE Auctions Guidelines

March 2018

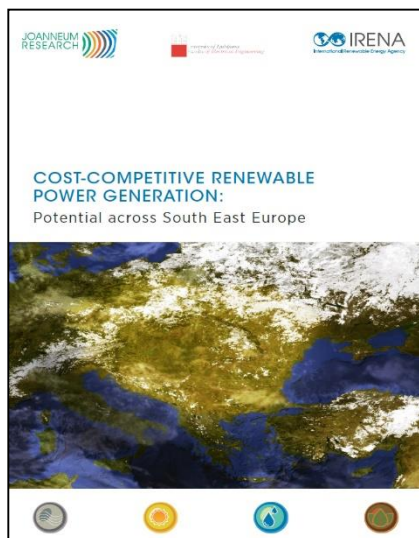
- ✓ Developed by EBRD and the Energy Community in collaboration with IRENA
- ✓ Targeting Energy Community countries



- ✓ Recommendations for auction design:
 - competitive process framework;
 - procurement choices;
 - selection process choices;
 - delivery mechanism of RE support.

REmap 2030 for the CESEC Region

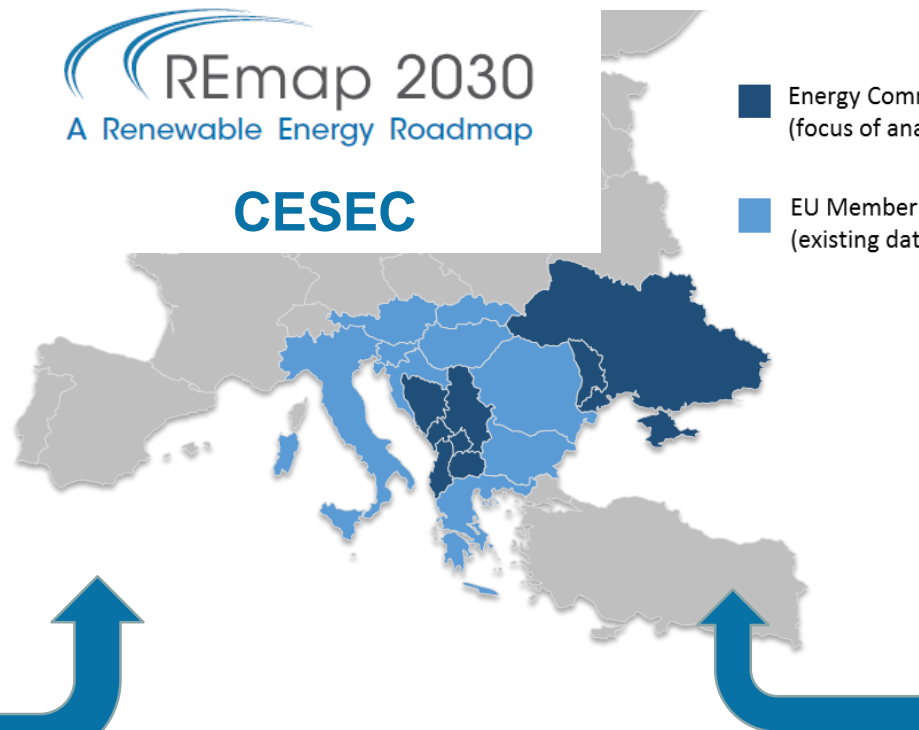
Supporting the process to establish post-2020 RE targets



REmap 2030

A Renewable Energy Roadmap

CESEC

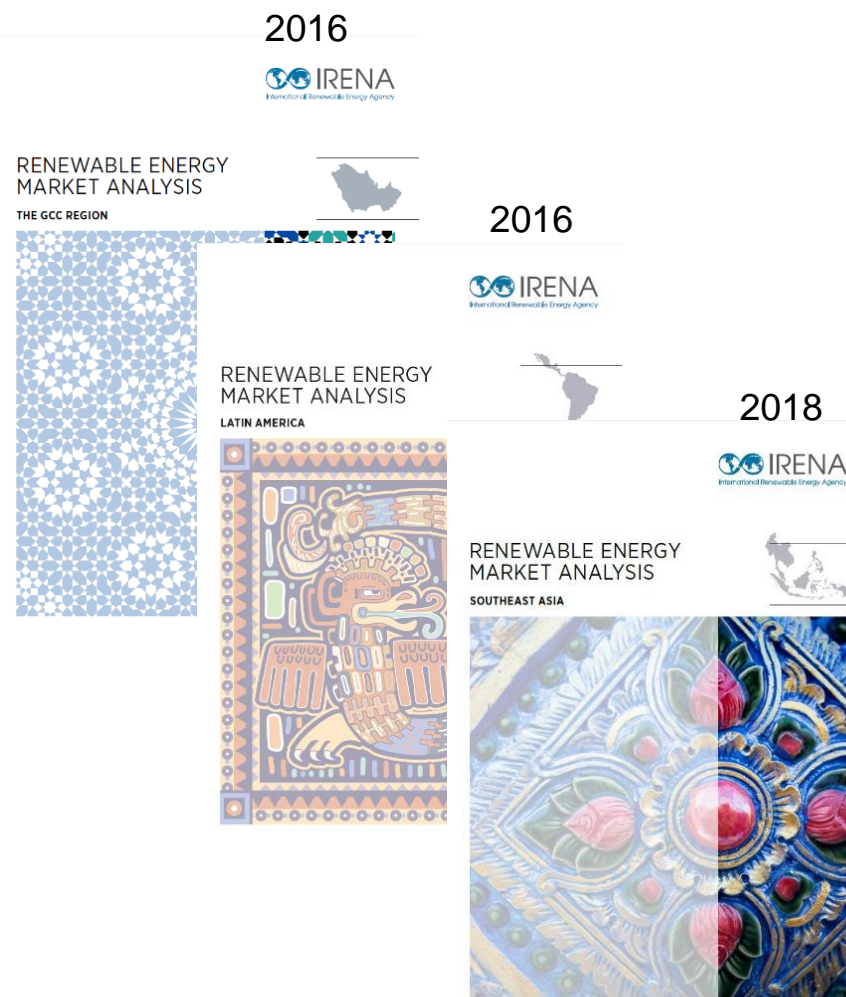


Ongoing process to establish 2030 RE targets



Regional Market Analysis for SEE

- ✓ Analyze **opportunities and constraints** of RE markets development
 - ✓ Identify **emerging trends** at the intersection of public policy and market development
 - ✓ Help raise awareness of **socio-economic benefits** of RE deployment, incl. jobs, industrial development & human welfare improvements.
 - ✓ Analyze the impact of RE on **end-user prices and affordability**.
- Bring together outcomes from different IRENA activities in the region



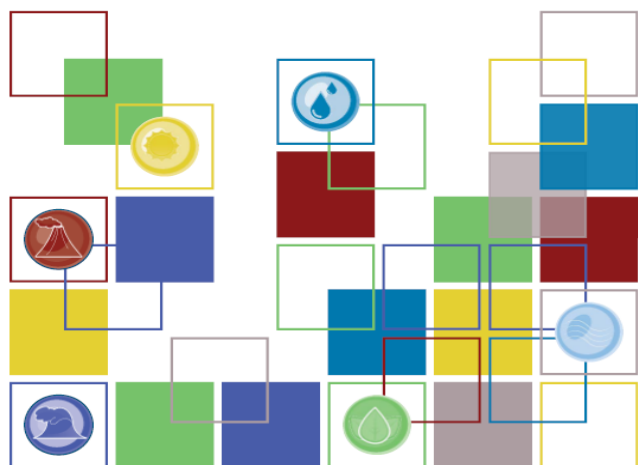
Regional Workshop on RE Statistics



Capacity needs assessment for
renewable energy statistics

5 – 7 December 2017, Tirana

Co-hosted by the Ministry of
Infrastructure and Energy of Albania



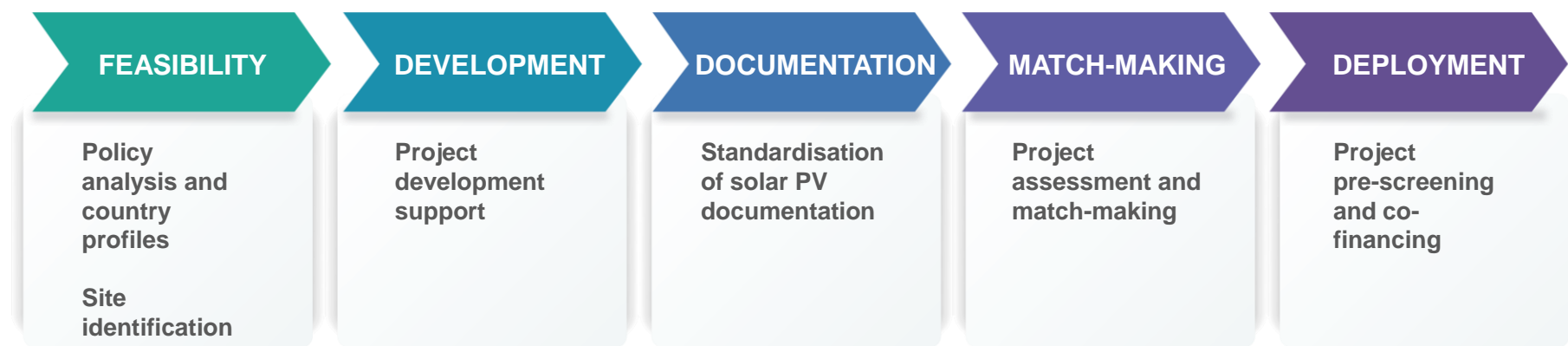
- Discussion on countries' experiences in data collection
- Key requirements for effective data management and data validation
- Energy balances
- Assessment of wood energy measurement and estimates, including:
 - Calorific values
 - Industry residues
 - Wood transformation



Overview of IRENA project facilitation tools

IRENA's project facilitation tools

IRENA has developed a wide range of tools and initiatives to support renewable projects throughout the whole life-cycle.



RESOURCE
YOUR SOURCE FOR RENEWABLE ENERGY INFORMATION
GlobalAtlas
FOR RENEWABLE ENERGY

IRENA
PROJECT NAVIGATOR

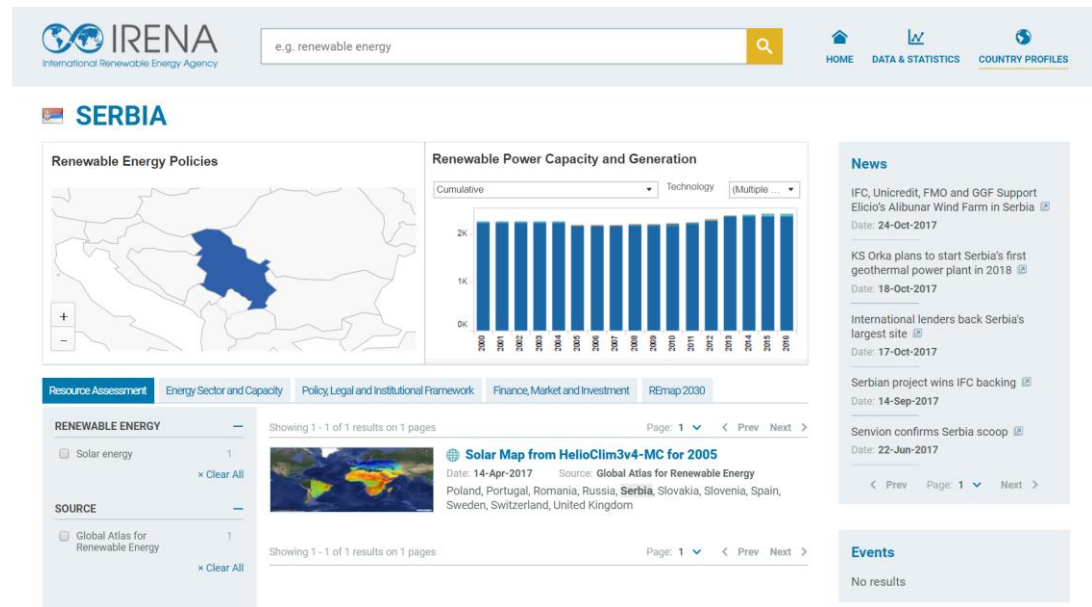
Global Solar Energy
Standardisation Initiative

**SUSTAINABLE ENERGY
MARKETPLACE**

IRENA **ADFD**
Supporting Energy Transition

- » Online search engine for renewable energy **data and analysis**
- » Enables users to find **country-specific data**, create **charts and graphs** and compare **countries and regions**
- » Provides **market statistics** and information on **resource potential, deployment policies, finance, costs, benefits, innovations, education** and other renewable energy topics

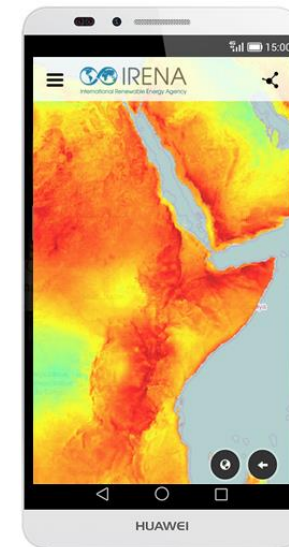
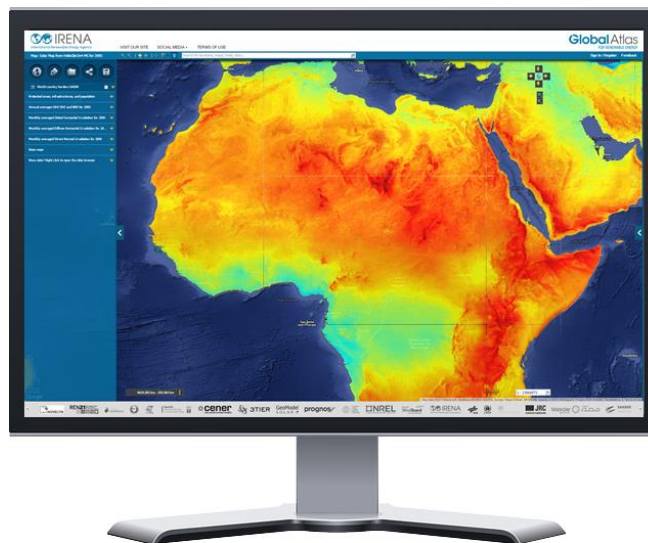
RESOURCE
YOUR SOURCE FOR RENEWABLE ENERGY INFORMATION



The screenshot shows the IRENA Resource website interface for Serbia. At the top, there is a search bar with the text "e.g. renewable energy" and a search icon. The IRENA logo and name are on the left. Below the search bar, the page is titled "SERBIA". The main content area is divided into two sections: "Renewable Energy Policies" with a map of Serbia, and "Renewable Power Capacity and Generation" with a bar chart showing cumulative capacity from 2000 to 2016. The bar chart shows a steady increase in capacity over the period. Below the main content, there are navigation tabs for "Resource Assessment", "Energy Sector and Capacity", "Policy, Legal and Institutional Framework", "Finance, Market and Investment", and "REmap 2030". A search results section shows "Showing 1 - 1 of 1 results on 1 pages" and a result for "Solar Map from HelioClim3v4-MC for 2005" with a date of 14-Apr-2017 and a source of "Global Atlas for Renewable Energy". A sidebar on the right contains a "News" section with several articles and an "Events" section with "No results".

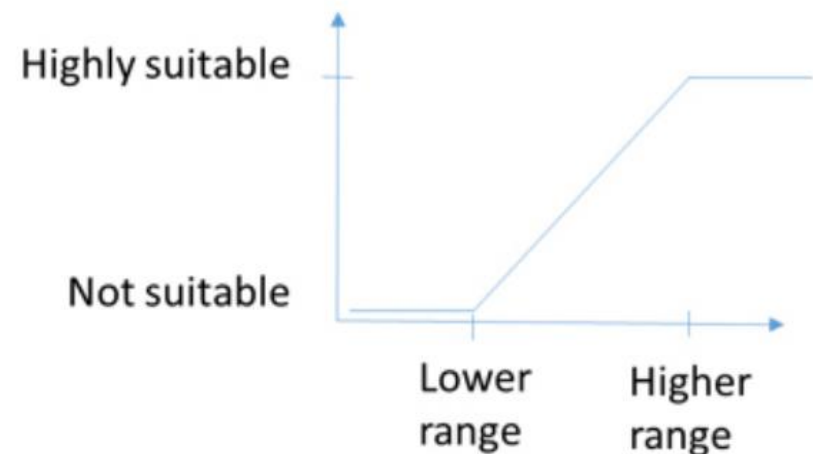
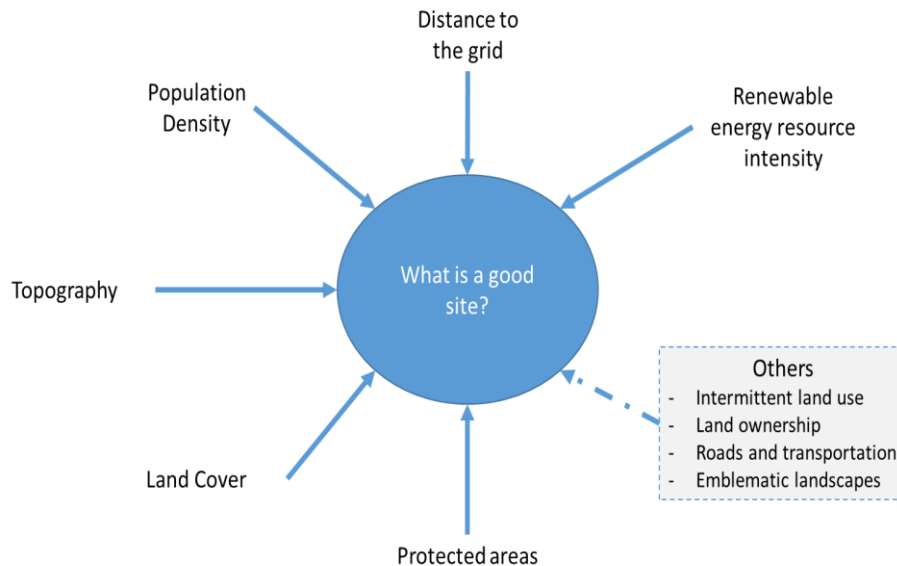
- » Largest initiative to **assess renewable energy potential** on a global scale
- » Creates high-resolution **resource maps**
- » Includes **solar, wind, geothermal, bioenergy and ocean** energy resources (expanding to encompass **all renewable energy resources**)

Global Atlas
FOR RENEWABLE ENERGY



Global Atlas Suitability Analysis

- The Global Atlas suitability analysis/zoning service involves GIS based spatial analysis using a method developed by IRENA for utility scale and off-grid applications.

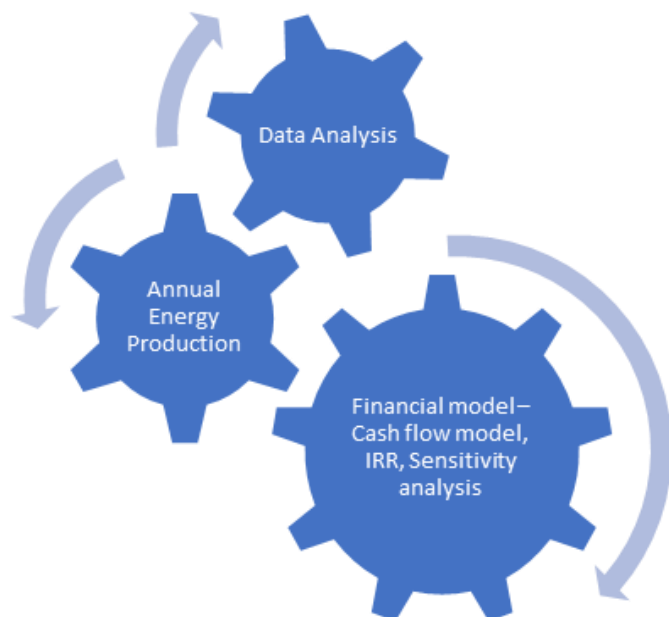


Assess this map at: <http://irena.masdar.ac.ae?map=2411>

- The service is an innovative and cost effective approach to screen/identify prospective sites for solar and wind development in countries.

System configurations covered:

- Wind (Utility scale)
- Solar (Utility scale)
- Solar and battery hybrid system
- Solar and diesel hybrid system



Interpretation I:

The site is economically feasible – within a given tariff range (in US cents/kWh)

Interpretation III:

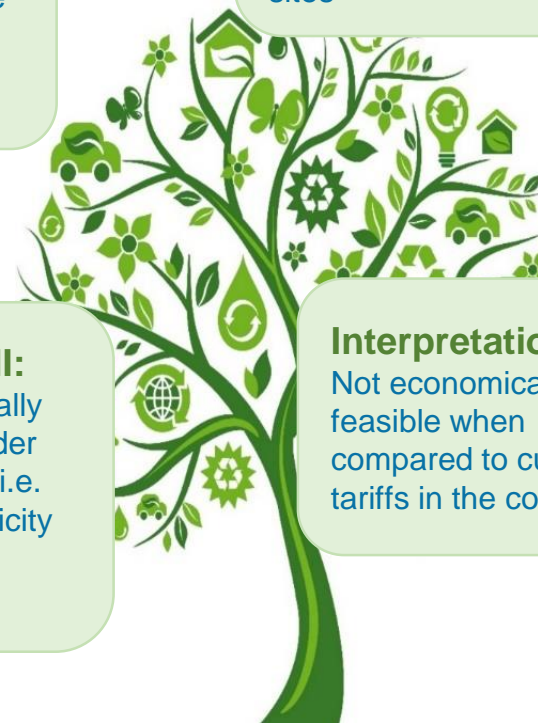
Marginally feasible – only when pooled with several other economically feasible sites

Interpretation II:

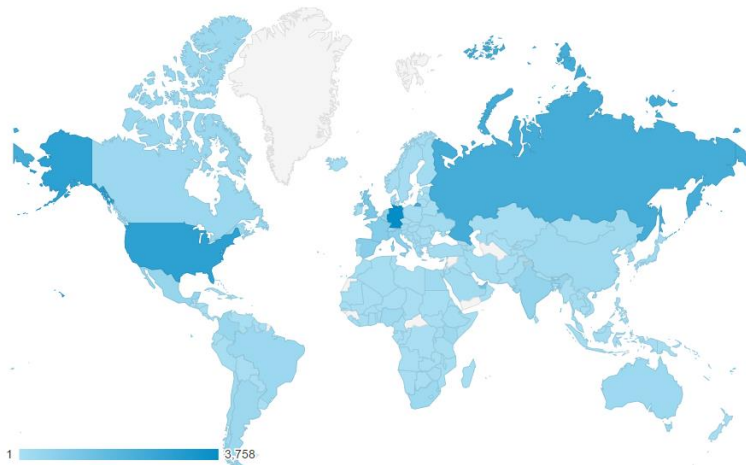
The site is marginally feasible – only under certain conditions i.e. high current electricity tariff or very low financing costs.

Interpretation IV:

Not economically feasible when compared to current tariffs in the country



A comprehensive platform giving project developers the tools – **at no cost** – to create robust, bankable renewable energy project proposals.



IRENA Project Navigator users worldwide

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Objective: Support **initiation, development** and **financing** of sustainable energy projects by:

- » Increasing the visibility of projects and financing opportunities
- » Creating a pipeline of bankable projects
- » Boosting private investment in sustainable energy
- » Offering active facilitation services

SUSTAINABLE ENERGY MARKETPLACE

© OpenStreetMap contributors

© IRENA

● The size of the bubble indicates the varying number of projects in each country

■ Sustainable Market Place Coverage

PROJECT HOST COUNTRIES

- Promote project portfolios
- Promote enabling investment environments

PROJECT OWNERS

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

SUSTAINABLE ENERGY MARKETPLACE



FINANCIERS

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

SERVICES & TECHNOLOGIES

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

Sustainable Energy Marketplace

Regional Hubs & Partners

AFRICA

SIDS

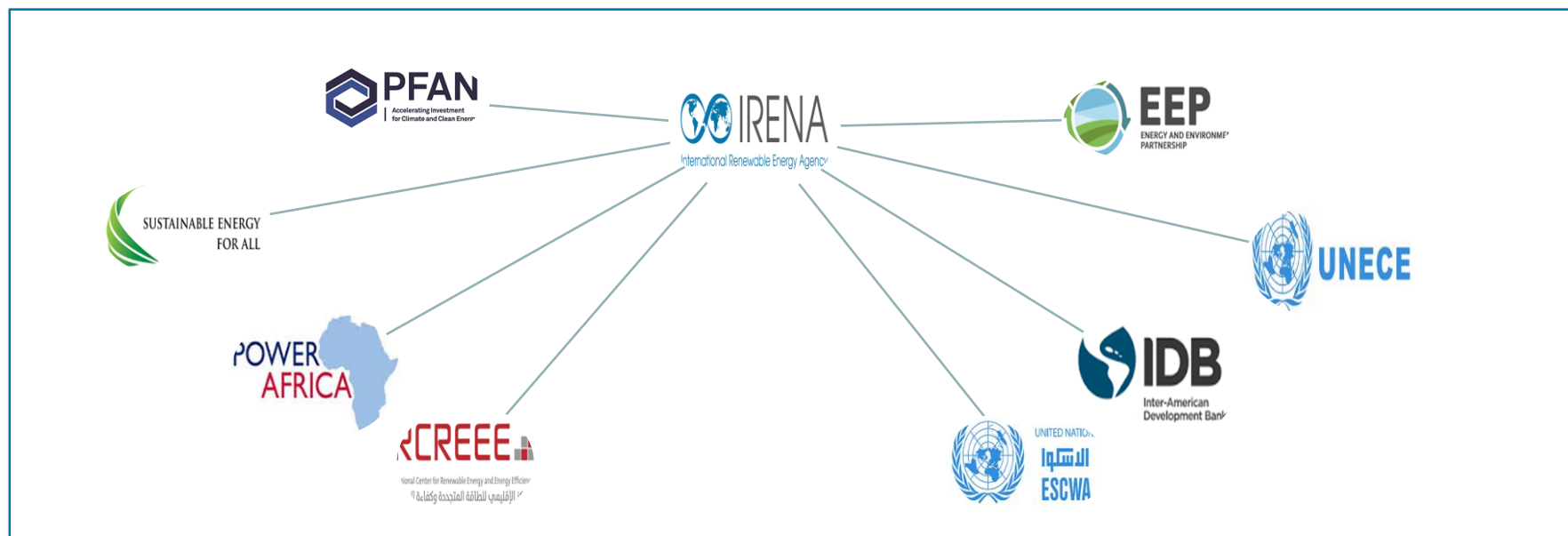
LATIN AMERICA

ASIA

SOUTH EAST EUROPE

MENA

PARTNERS NETWORK



Sustainable Energy Marketplace



8.4 billion US \$
Total investment cost

3.8 GW
Combined installed capacity (power generation projects only)

174
Projects

147
Financing instruments

<http://marketplace.irena.org>

1 7 4 #

Sustainable energy projects...

78 projects in **LATIN AMERICA**

72 projects in **AFRICA**

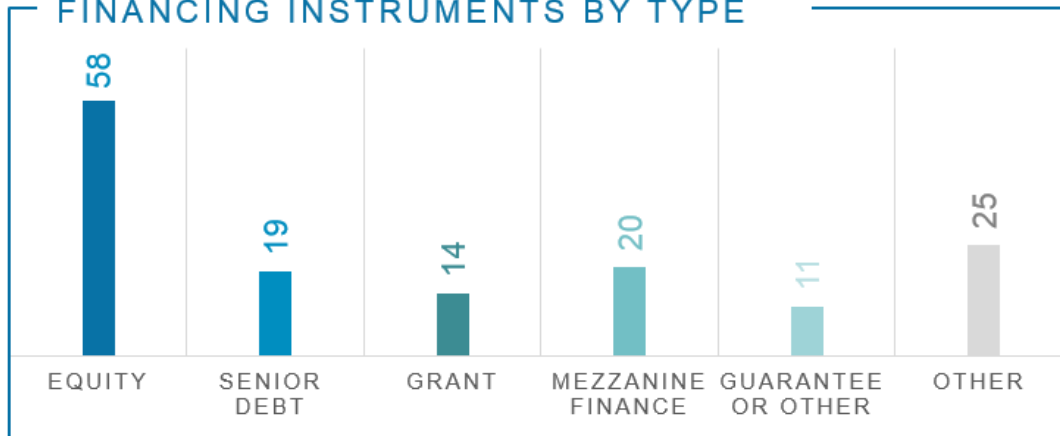
24 projects in **SIDS**

with their total installed capacity

| total investment size being...

3.8 GW | 8.4 BN USD

FINANCING INSTRUMENTS BY TYPE



6 2 #

Financial Institutions are registered on the **Sustainable Energy Marketplace**, offering

1 4 7 #

Financing Instruments

IRENA **ADFD**
PROJECT FACILITY



IRENA
International Renewable Energy Agency



صندوق أبوظبي للتنمية
ABU DHABI FUND FOR DEVELOPMENT

- ✓ 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.

7th

cycle will open in mid-November 2018. Start working on your applications now!

Apply here

www.irena.org/adfd



Thank you

Marcin Scigan, Associate Programme Officer

